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A descriptive and evaluative examination of Iowa behavior disorder students, procedures, and programs

Todd Charles Reiher
Iowa State University

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**A descriptive and evaluative examination of Iowa behavior
disorder students, procedures, and programs**

Reiher, Todd Charles, Ph.D.

Iowa State University, 1990

U·M·I

**300 N. Zeeb Rd.
Ann Arbor, MI 48106**

**A descriptive and evaluative examination
of Iowa behavior disorder students, procedures, and programs**

by

Todd Charles Reiher

**A Dissertation Submitted to the
Graduate Faculty in Partial Fulfillment of the
Requirements for the Degree of
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**Iowa State University
Ames, Iowa**

1990

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Introduction

Questions regarding the nature of programs for behaviorally disordered students arise frequently in the professional literature of the special education disciplines. This topic is neither unusual nor new (Reitz, 1985a). What is surprising about this area of study is the relative paucity of answers to these questions, especially in light of the vast number and wide variety of programs for behaviorally disordered students that are currently in existence (Grosenick & Huntze, 1983). Spawned by the passage of P.L. 94-142, the resultant mandate for the provision of special education services for all handicapped children has effectively proliferated the number of programs available for youngsters with behavioral disorders, mostly within the last 20 years (Grosenick & Huntze, 1983). Proliferation of programs, to the extent that it increases the availability of services to those that require them, is undoubtedly a positive development within the field of education. Rapid growth, however, also brings with it aspects that have the potential for more negative consequences. A usual assumption of consumers and an attitude often expressed by practitioners in the field of special education is that the expanded programs are not only making special education services available to more behaviorally disordered students who require them, but that those programs are also providing services that are well conceptualized and based on sound educational and psychological knowledge (Lakin, 1983). However, in actual fact many of the current special education practices simply do not meet the criteria for being well conceptualized and based on sound educational and psychological knowledge, but are driven by a variety of fiscal, political, and locally idiosyncratic forces (Ysseldyke, 1987). Within the field of behavioral disorders Smith, Wood, and Grimes (1988) summarized the current

state of exemplary practice as being based only in part on soundly demonstrated principles, supplemented by the judgement of experienced clinicians. Based on their evaluation of the current state of research regarding the identification and placement of behaviorally disordered students, they further stated, "In the meantime, practice is probably more determined by teacher socialization to a group norm than by research" (p. 116).

The specialization within special education that leads to separate programs and procedures for behavior disordered students rests upon the logic that such specialization of practice is clearly indicated for effectively treating the clients within this subspecialty (Lakin, 1983). Also, the creation and practice of a subspecialty further requires that the salient techniques, philosophies and practices of that specialty are known to members of the profession and used by those members. Amid the stark conclusions that most of what is attempted in the name of special education for mildly handicapped students is not demonstrably effective (Epps & Tindal, 1987), considerable effort has recently been expanded to outline alternatives such as "non-categorical" approaches to the identification and education of mildly handicapped students (Nevin & Thousand, 1987; Morsink, Thomas, & Davis, 1987; Blackhurst, Bott, & Cross, 1987; Reynolds & Lakin, 1987).

If the primary source of information regarding current and future practices available to the professional members of the specialty is the scientific research base of the specialty, then it is necessary for such literature to provide systematic description and evaluation of the professional practices. The current state of the professional literature is such that it sometimes does not offer sufficient guidance to educators in developing programs for behaviorally

disordered students (Grosenick & Huntze, 1983; Lakin, 1983). Some of the cited inadequacies include improper subject selection (e.g., no randomization), narrow definition of subject problem behaviors, and analysis of data that neglect important variables such as student age, sex, I.Q., academic ability, or socioeconomic status (Lakin, 1983).

Efforts have been made recently at the national level to provide a base of knowledge regarding programs for the behaviorally disordered (Grosenick, George, & George, 1987). However attractive such efforts may be, it seems much more useful to begin by providing a base of program knowledge at the state level, where most of the special education practices and procedures are developed, monitored, and evaluated. Such a base of knowledge for behavior disordered programs in Iowa does not currently exist. This project then was an effort to fill that gap and provide such a base for use by special educators and members of related professional disciplines. It is the ultimate goal that the subsequent provision of services to behaviorally disordered students will be enhanced as a result of the knowledge gained through this project and that this enhancement will lead to more effective professional practices and improvements in the lives of the youngsters we serve.

Review of Literature

A Brief History and Definition of Behavioral Disorders

The formal special education category of "behavioral disorders" was created in Iowa through legislative action that officially went into effect on July 1, 1983 (House File 133). Prior to this time the two separate categories of "emotional disabilities" and "chronically disruptive" had been used to designate those children in need of special education as a result of emotional or behavioral concerns. Along with this shift in terminology also came a shift in both the philosophy underlying this area of special education and the press by which students with behavioral disorders were identified (Smith & Grimes, 1985). This philosophy shift was a move away from an exclusive mental health model in defining behavioral disorders and resulted in an identification process that placed more responsibility with the diagnostic-education staffing team rather than with an identified mental health professional. Special education eligibility for behaviorally disordered students has thus become an educational decision to be made within the school setting rather than a decision that is made by colleagues from other disciplines.

These changes also resulted in a new definition for behavioral disorders. This definition is contained in the Iowa Rules of Special Education (1985) and reads as follows:

"Behaviorally disordered" is the inclusive term for patterns of situationally inappropriate behavior which deviate substantially from behavior appropriate to one's age and significantly interfere

with the learning process, interpersonal relationships, or personal adjustment of the pupil to such an extent as to constitute a behavioral disorder (p. 2).

The concept of behavioral disorders, with its accompanying changes in philosophy and procedures for identification and education, is a relatively young concept. Much of what is occurring within this area of special education has recently developed and is continuing to evolve.

Need for Programmatic Behavioral Disorder Research

In their review of the services provided to behaviorally disordered (BD) children, Grosenick and Huntze (1983) identified eight elements of BD programs that they considered to be both essential to the program and indicative of a well-conceptualized program. These elements included the following: program philosophy; program goals; population definition; entry process; methods, curriculum, and materials; exit procedures; evaluation; and program operations. Their subsequent search of the literature for descriptions of BD programs that included these elements left them to lament the absence of such data from either a descriptive or evaluative perspective. In short, their bleak findings led them to the conclusion, "It was clear that, while the process we had pursued still appeared to be a good one, the literature base to which it was being applied was not" (Grosenick & Huntze, 1983, p. 2). Clearly, the level of knowledge available left much to be desired.

Lakin (1983) also expressed a less than satisfactory evaluation of the state of knowledge regarding the treatment of BD youth. His position essentially characterized the two principal sources of professional knowledge as either

being clinical (including general life experience) or scientific research (that which follows rules of behavioral science). With respect to the latter, Lakin is critical of much that has been done because of the narrowness of focus of the research, especially the procedures and criteria for subject selection. Although subject selection is not directly the topic of this study, his admonishment regarding narrowness of focus rings true as a descriptor of some of the apparently false assumptions inherent in our special education treatment of BD youth. Especially noteworthy are the tendencies to conceptualize BD youngsters within similar programs as being homogeneous while treating those groups of youngsters residing in differing programs as being distinct from each other. Additionally, the Lakin (1983) review identified a series of faulty or incomplete descriptive practices in much of the published BD research that effectively function to limit its practical usefulness, leading him to characterize the reviews and summaries of such research as "little more than annotated bibliographies with scholarly transition phrases" (p. 131-132). Not an attractive reflection of knowledge in any field. A troubling notion indeed for the field of behavioral disorders.

These and other admonishments regarding research in the area of BD programs contain a theme that has a holistic flavor. This theme is concerned with a broadening of the focus of research across interdisciplinary boundaries to include conceptual and contextual factors that influence and shape the treatment programs (Leone, 1988). Efforts to provide such knowledge are few, but some promising recent developments are evident in the BD research

literature. This research might begin at the program level since it is expected that services will be delivered within the context of a well conceptualized program (Reynolds & Birch, 1982).

National Programmatic Research Efforts

The seminal, large-scale descriptive study of special class programs for emotionally disturbed students was that of Morse, Cutler, and Fink (1964). The purpose of this study was twofold. First, the description of existing programs for emotionally disturbed pupils and, secondly, the documentation of the effects of these programs on the children enrolled in them. Their effort included both survey and personal site visitation through which they attempted to gather information regarding characteristics of the students; program history, design and support; personnel involved; and estimations of success. After looking at these data, the author concluded that the programs examined were functioning satisfactorily and were providing benefits to those students enrolled in them. Also, they discovered differences that led them to view some programs as being more effective than others. However, they also found a variety of approaches used that seemed to indicate a lack of a systematic procedure in favor of more practical, intuitive approaches.

Subsequently, Grosenick, George, and George (1987) completed a replication/follow-up to the Morse, Cutler, and Fink (1964) study. Grosenick et al., as part of the ongoing National Needs Analysis Project in Behavior Disorders, surveyed BD programs nationally in an attempt to profile these programs. The study consisted of a program evaluation instrument mailed to administrators familiar with the programs in their districts. The instrument

focused on the eight program components of philosophy, student needs and identification, goals of the program and student, instructional methods and curriculum, community involvement, program design and operation, exit procedures, and evaluation. A comparison was then made with the earlier results of Morse et al. (1964) on the following dimensions: philosophy, aims, and goals including theoretical orientation; service delivery; teacher role including training; and entrance and exit procedures. The author noted differences with respect to theories of deviance used to operationalize programs while at the same time noting similarities regarding the basic aims and purpose of programs, the formal nature of the entrance procedure, the exit criteria, and the central and fundamental role of the teacher in these programs. The most striking difference, however, was one of quantity. Numerical "progress" has been achieved in terms of the number of children served, the level (severity, age) of children served, the types of services provided, and the number of certified teachers in the field. These numerical indices are, however, a very one-dimensional, restrictive set of standards. Grosenick et al. (1987) wonder about the qualitative component of BD program progress. Indeed, some of their data indicate that qualitative evaluation measures in the field are inappropriately lacking. They call for the field to move beyond numerical increases to address the issues of quality, effectiveness, and program standards. These are the more salient criteria against which to judge program success.

Evaluation and Description of BD Programs

In a recent thematic issue of Education & Treatment of Children (Reitz, 1985b), a group of professionals involved in administering and/or evaluating

programs for BD students presented a series of manuscripts that attempted to stimulate discussion and growth in the area of program evaluation for BD students. These manuscripts were organized around a program evaluation model developed by Hawkins, Fremouw and Reitz (1981) consisting of four major questions that a program evaluation effort should attempt to answer. Of those questions, two have been included as the focus of this project. Those two are: (1) Who are the clients? and (2) How do the programs serve them? These two questions, then, serve as a guide for the establishment of a data base that identifies the practices within programs. The emphasis is not on outcome in terms of actual measurement of student improvement or behavior change, but on those practices that professionals within the field use in response to various types of students within different levels of program severity.

This project then presents data regarding student characteristics, program model characteristics, assessment procedures, individual education programs, curriculum emphases, intervention emphases, support service, and integration/exit procedures. It is believed that an examination of these areas will provide information pertinent to the two questions outlined above.

Student Characteristics

The first steps in the attainment of an adequate data base are descriptions of pertinent characteristics of the students in the population and examinations of the relationships between these characteristics. In addition to demographic data such as sex, race, age, grade, and prior history, the academic, intellectual, and behavioral characteristics of these behaviorally disordered students were also examined. Previous studies have looked at each of these areas in isolation,

however, the specification and interrelation of these factors for the BD population is seen as useful in determining the type of student most at risk for identification as behavior disordered (Kauffman, Cullinan, & Epstein, 1987).

One such study, recently completed (Kauffman et al., 1987), examined various aspects of student characteristics. First, descriptive data were obtained regarding the intellectual, academic, and behavioral characteristics of a relatively large (N = 249) sample of seriously emotionally disturbed students. Second, an analysis was completed of relationships among these characteristics and various placement options. Third, an estimation was made of the effects of certain exclusionary criteria on prevalence and program composition. Significant deficits in general intellectual functioning were observed as well as relationships between reading ability and specific types of program behaviors. With respect to placement findings, the positive relationship between percentage of time in regular classes and IQ was stronger than the relationship between regular class time and reading achievement or behavior ratings. It almost seemed as if placement decisions for these students had been based more on IQ alone than on IQ, academic skills, and behavioral considerations together. The lack of predictiveness of behavior problem and academic underachievement was seen as suggesting either that placement decisions did not include these data or that other, nondocumented subjective data sources were used in making placements. Finally, it was observed that about 30% of the students served by special education programs were at or above grade level in core academic subjects. Kauffman et al. speculated that a future 30% reduction of the BD students in this sample would be achieved if both maladaptive behavior and academic deficits were required for placement. These speculations

were noted as being very tenuous and appropriate only for exploratory purposes. However, the potential administrative impact of that proposal becomes quite obvious.

Programming and Placement

Issues of debate, or even sometimes confusion, abound with respect to the assessment procedures used in the diagnostic process of identifying students as behaviorally disordered (Executive Committee of the Council for Children with Behavioral Disorders, 1987). Such confusion and lack of consensus has been noted to be a functional by-product of a federal definition that is too general and ambiguous, uses language that requires interpretation and speculation of "intent," and does not reflect the best thinking and professional input regarding definition (Wood & Smith, 1985; Kauffman, 1982; Yard, 1977). The litigative process has functioned as the vehicle through which clarification of the federal definition has occurred. Especially noteworthy is the case of The Board of Education of the Hendrick Hudson Central School District v. Rowley (1982) that was argued before the U. S. Supreme Court. The case originated out of a dispute over the education of Amy Rowley, who is deaf. Amy's individual education program (IEP) provided for her to be educated primarily in a regular education classroom with the use of a hearing aid and her lip reading skills, which were excellent. She was to receive instruction from a tutor for the deaf for one hour each day and from a speech therapist for three hours each week. The Rowleys agreed with these provisions, but also insisted that a qualified sign language interpreter be provided in all of her classes. When the school refused to provide the interpreter, the Rowleys brought suit. The lawsuit contended that even

though Amy was achieving academically and had been advancing from grade to grade she could not achieve her full potential without the sign language interpreter. After several lower court decisions, the U. S. Supreme Court ruled in favor of the school district.

The Rowley (1982) decision was important in its delineation and distinction of the standards of optimal v. appropriate special education. The majority opinion in this case rejected the contention of the plaintiff that the school district was obligated to provide Amy Rowley "an opportunity to achieve her full potential commensurate with the opportunity provided to other children" (p. 3040). Thus, school districts need not provide an "equal opportunity" for handicapped students to achieve to their full potential, but a basic "floor of opportunity" that guarantees access to specialized instruction and related services. As long as the child's placement program is individually designed, provides educational benefits, and comports to the child's IEP, then the placement meets the provisions of the Education of the Handicapped Act.

The decision handed down in Rowley is viewed by Wood and Smith (1985) as also providing guidance for decisions regarding the eligibility of BD students for special education services, which they summarized as follows:

An appropriate educational placement will be one from which a behaviorally disordered student receives educational benefit. The law and implementing regulations also make it clear that, in addition to supporting student progress, the placement should be in the least restrictive environment. Supplementary services must

be provided if necessary for the student to benefit from the special placement. Those charged with making decisions on these matters must have data that have been gathered through appropriate (emphasis added) assessment procedures (p. 41).

Assessment

What then are the issues surrounding the question of appropriate assessment procedures? A thorough treatment of this question is beyond the scope of this project and the interested reader is referred to the CCBD (1987) position paper or Wood and Smith (1985). What is pertinent to this project, however, are those assessment procedures that have been developed by the Iowa Bureau of Special Education as recommended practice for the assessment and diagnosis of behavior disorders within that state. These procedures have been developed, are outlined in the Iowa Rules of Special Education (1985), and are published in manual form (Wood, Smith, & Grimes, 1985). This manual outlines a model of assessment aimed at the collection of data that is useful, unbiased, and leads to quality decision making. Included are specific questions to be answered as well as general procedures to be followed and suggestions for specific procedures and instruments to be used in collecting data within specified domains. The "Iowa model" was developed in response to the change that occurred through legislative action (House File 133) in 1983 that collapsed the categories of "emotional disability" and "chronically disruptive" into one category of "behavioral disorder." This change yielded a new definition that specified clusters of behavioral characteristics of pupils who are behaviorally disordered and areas of data collection that shall be gathered.

Behavioral Clusters

A total of four behavioral clusters were outlined into which pupils who are behaviorally disordered may be diagnosed. The 1983 definition listed the clusters as follows: Cluster I - significantly deviant disruptive, aggressive, or impulsive behaviors; Cluster II - significantly deviant withdrawn or anxious behaviors; Cluster III - significantly deviant thought processes manifested with unusual communication, behavior patterns, or both; Cluster IV - significantly deviant behavior patterns characterized by deficits in cognition, communication, sensory processing or social participation or a combination thereof that may be referred to as autistic behavior. A pupil's behavior pattern may fall into more than one of the above clusters.

Data Collection

The 1983 definition stated that in addition to the usual data required for a comprehensive educational evaluation, additional collection of specific behavioral data in three specified areas is required to describe the qualitative nature, frequency, intensity, and duration of the behavior of concern. These areas include setting analysis, pupil behavior data, and individual trait data.

Setting analysis. Setting analysis is a determination of the relative fit of the student to his/her school surroundings and is intended to identify the setting from which the student is being referred. It is an explicit acknowledgement that behavior is situationally dependent and does not occur in isolation (Miller, Epp, & McGinnis, 1985). Setting analysis is intended to provide a framework for the assessment of the student's behavior. It also must

include a documentation and review of attempts to remediate the student's behavioral problems in the regular classroom setting prior to referral for evaluation.

Pupil behavior. Pupil behavior data attempts to provide practical information that describes the behavior of concern, including precipitating factors for the behavior and consequent reactions to the behavior (Sodac, Nichols, & Gallagher, 1985). This practical information includes documentation of the frequency, intensity, and duration of the behavior through structured assessment procedures such as behavior rating scales and systematic, direct observation of the student.

Individual trait data. Individual trait data includes information regarding the unique personal attributes of the student. It is intended to provide a description of the student's psychological dimensions that may not always relate to directly observable behavior and that may characterize the student's behavior across a variety of settings (Weissenburger, Bielat, Gingrich, & Jensen, 1985).

Such is the assessment and diagnostic model developed as preferred practice for use by professionals in Iowa. This model and these specified areas of assessment were developed in part in response to research evidence demonstrating that there were inherent problems in the procedures being used to identify BD students (Wood & Smith, 1985). Specifically, studies called into question the quality and the availability of the behaviorally oriented data (Smith, Frank, & Snider, 1984) found that documented assessment information tended to be general in nature and not necessarily from the areas specific to that of behavior disorders (McGinnis, Kiraly, & Smith, 1984), and that BD teachers

indicated that useful information was not always available as a result of the evaluation and the information that was available was often not useful to them (Zabel, Peterson, Smith, & White, 1982).

Placement Options

A placement option must be selected for students classified as BD and in need of special education. The choice of placement options should occur after several preceding steps including: (1) One or more pre-evaluation interventions are attempted in the regular classroom and found to be inadequate for the student to receive an appropriate education; (2) Referral for and the execution of an initial comprehensive evaluation by a multidisciplinary team in which the student is found eligible for the behavioral disorder classification and in need of special education; (3) Formulation of an Individualized Education Program (IEP); and (4) Selection of a placement option that meets the student's needs. It should be stressed that Iowa Rules and Federal Regulations demand the use of the least restrictive environment as well as the selection of the placement option according to the student's needs rather than administrative convenience or local availability.

Iowa students with behavioral disorders are nearly always placed in one of four options. Each of these options has unique characteristics including different levels of state financial support. The similarities and differences associated with these options were important considerations in the design of this study which used placement option as a stratification variable in sample selection. Each is described in more detail below.

Resource Teaching Program (RTP)

The RTP placement option is described as follows in the Iowa "Rules" (1985, p. 7). "**Resource teaching program.** An educational program for pupils requiring special education who are enrolled in a general education curriculum for a majority of the school day but who require special education in specific skill areas on a part-time basis. Pupils enrolled in this type of program require special education for a minimal average of thirty minutes per day. The maximum class size is eighteen (18) at the elementary and secondary levels with the exception of the hearing and visually impaired which is fifteen (15) at both levels. The teacher of a resource teaching program shall serve in no more than two attendance centers. This program shall include provisions for ongoing consultation and demonstration with the pupil's teachers and may be operated on a multicategorical basis."

Perhaps the most important features of the RTP are: (1) The student is in regular education for most of the school day; (2) The student generally remains in the standard curriculum; and (3) The RTP provides assistance in weak academic areas or with specific kinds of learning problems. The RTP is a less drastic change from regular education than the special class options described below. Assuming a local district's average cost per pupil of \$2,590, each student in a RTP is weighted at 1.7, meaning that \$4,403 is generated by the student for the instructional program being provided by the district for regular program costs which would include administrative costs, regular transportation, operation and maintenance of the facility where the program is housed and integration costs. The remaining \$1,813 is used to provide the resource teaching program.

Special Class with Integration (SCIN)

The special class with integration is described in Iowa "Rules" (1985, p. 7), "Special class with integration. (a) An educational program for pupils requiring special education who have similar educational needs and who can benefit from participation in the general education curriculum in one or more academic subjects with pupils who are not handicapped. The maximum class size for this model is twelve (12) at the elementary level and fifteen (15) at the secondary level with the exception of the hearing impaired which is ten (10) at both levels. This program shall include provisions for ongoing consultation and demonstration with the pupil's teachers. (b) Programs of this type may be operated on a multicategorical basis with approval of the director. For approval to be granted, the following conditions shall be considered: Support services provided to the program including appropriately authorized consultant services; the need for and availability of paraprofessionals to assist the teacher; served pupils have comparable educational needs; the chronological age range does not exceed four years; and program curriculum consists of appropriate content for handicapping conditions served."

SCIN programs also have a per student weight of 1.7; however, only \$1,166 of the \$4,403 is returned to regular education, leaving \$3,238 to provide a special class with integration program. The kind of integration in regular education varies considerably, from several hours per day in academic subjects to as little as 30 minutes per day. The Iowa rule quoted above requires the integration to involve, "... participation in the general education curriculum in one or more academic subjects ...", which includes the areas of music, art, and physical education according to the minutes of a Bureau of Special Education

staff meeting in 1985 (Minutes, 1985). The integration in one academic area was also defined as an average of one period per day over a five day week.

Self-Contained Special Class with Little Integration (SCC)

The Self-Contained Class (SCC) is described in Iowa "Rules" (1985, p. 7) as follows: "Self-contained special class with little integration. An educational program for pupils with similar educational needs who require special education, but who can benefit from limited participation in the general education curriculum with nonhandicapped pupils. The maximum class size for this model is eight (8) at the preschool and the elementary levels and ten (10) at the secondary level. Preschool programs of this type may be operated on a multicategorical basis."

The SCC option carries a weighting of 2.2 meaning that \$5,698 is generated per student. Of the money generated, \$777 (30% of \$2,590) is returned to regular education; leaving a total of \$4,921 to provide the self-contained special class with little integration program. The SCC option also carries a lower student to teacher ratio and presumably involves students with moderate to severe impairments. The greater severity presumably requires more intense special education.

Self-Contained Special Class (SC)

The self-contained special class is described in Iowa "Rules" (1985, p. 7) as follows: "Self-contained special class." An education program for pupils with similar educational needs who are severely handicapped and whose instructional program is provided by a special education teacher. The pupils

shall be offered opportunities to participate in activities with nonhandicapped peers and adults. Preschool programs of this type may be operated on a multicategorical basis."

The SC option carries a weighting of 3.6 meaning that \$9,324 is generated per student. Of the money generated, \$648 (25% of \$2,590) is returned to regular education, resulting in a total of \$8,677 for the self-contained special class program. The SC option carries the lowest student to teacher ratio (5:1) to presumably allow for the most intensive treatment.

Individualized Education Program

As mandated by P.L. 94-142 a written individualized education program (IEP) must be prepared for each handicapped child. This plan must state the present levels of functioning, long and short term goals, services to be provided, and plans for initiating and evaluating the service. The IEP is a cornerstone of the treatment process for behaviorally disordered students by which each student's unique characteristics are considered and a treatment plan developed to meet the needs of this student. Research efforts have examined the degree to which IEPs adhere to the procedural standards set for their development by measuring their completeness, or the degree to which they contain required components; they have often found them lacking. For example, Schenck and Levy (1979), in an examination of 300 IEPs of students with various handicapping conditions, noted large numbers of omissions of students' current performance levels and goals and objectives. Smith and Simpson (1989) evaluated 214 IEPs of BD students and found that over one-third lacked necessary mandated components and even more contained procedural faults.

One could argue that procedural technicalities are less important than the extent to which the IEP reflects that a sound, well conceptualized plan for treatment is at least in existence and reflected in classroom activities. Such a plan could theoretically incorporate the information from the student's evaluation into an effective treatment plan without necessarily arranging the information strictly according to required IEP format. However, it seems less likely that a sound treatment plan would not reflect, in a broad sense, the behavioral and emotional needs identified through the evaluative/diagnostic process. In fact, Fiedler and Knight (1986) found a lack of congruence between diagnostic recommendations and intervention goals for BD students while Smith and Simpson (1989) also reported substantial deficits in the area of congruence, or what they term "IEP integrity." These deficits included both the identification of goals in the absence of an identified need and the indication of a need without the existence of a corresponding goal. This lack of congruence casts serious doubt about the validity of the link between assessment and intervention, a fundamental tenant of psychoeducational treatment.

Practical considerations (time and effort) as well as a division-of-labor separation (evaluation by support staff, IEP written by teacher) often seem to serve as hindrances to the IEP process when the responsibility for the IEP is left to the teacher, as it often is (Morse, 1985). In fact, studies have shown that many teachers consider the IEP an outmoded and clumsy tool that is not of much use in their teaching practices (Dudley-Marling, 1985; Morgan & Rhode, 1983). However, it seems that the perceived lack of function attributed to the IEP may be more a result of form than purpose. Many will argue great benefits do not accrue from having a detailed, specific, and bureaucratically regimented plan,

but few would contest the proposition that effective treatment cannot proceed unless assessment information is assimilated by the service provider and treatment/intervention proceeds in an orderly fashion from this information. The heterogeneity of the BD population necessitates an individualized approach rather than a standard, generic mode of treatment.

Curriculum and Intervention

To cover the entire range of intervention techniques and curriculum approaches that are used in BD programs is beyond the scope of this review. The aim of this work, rather, is to highlight and focus on issues surrounding the explication and specification of approaches by programs in a systematic manner. It has been the informal experience of the author that programs for the behaviorally disordered generally contain, to varying degrees, components concerned with behavioral, academic, social, and emotional needs of the students. These components are provided through the use of highly structured, operant environments (e.g., token economies, contingency management), various academic instructional techniques, group counseling (including social skills training), individual counseling, and crisis intervention. Depending on the program philosophy, teacher preference, expertise and availability of support staff, and student needs these techniques and areas of emphasis will be combined in some manner to form a program for a given student. One would like to think that the factor carrying the largest weight in determining this combination would be the needs of the student (which may also be thought of as severity of disorder or restrictiveness of the program model).

The traditional continuum of services or cascade model (Reynolds, 1962) presents levels of educational placement in the form of a sequence according to their degree of restrictiveness or the amount of time they allow students the opportunity to participate in regular education. With the mandate from P. L. 94-142 that special services be provided in the least restrictive environment (LRE) the levels of the "cascade" became very important in determining the level of restrictiveness necessary for a child to receive adequate treatment while still allowing the child the maximum amount of time possible with regular education peers. The notion of LRE carries with it an assumption that it is preferable to educate special students in settings that are more normalized and socially integrated rather than segregated (Zabel, Peterson, & Smith, 1988). The inherent danger with such a conceptualization of services is the tendency to view levels of the cascade as physical settings that regulate students' integrated time through their structure. Alternate educational settings should not be viewed differentially in terms of their physical differences, but should be viewed as differences in the nature, focus, and intensity of the services that they provide to students in treating their disorders (Reynolds & Birch, 1982; Wood & Smith, 1985). This view then characterizes the levels of the cascade primarily as variations in the services provided to students rather than places where students receive services.

This notion of variation of services was recently investigated by the Iowa Mental Disabilities Research Project (Reschly, Robinson, Volmer, & Wilson, 1988d) where it was found that there was relatively little basis for instructional technique differentiation between some special class options for students with mild mental disabilities. The author of this report noted that this lack of

difference casts doubt on the necessity of certain differential placements and on the cost benefits of more restrictive programs (SCC vs SCIN).

A related investigation examined the extent to which teachers of behaviorally disordered students engage in different professional activities as a function of classroom program model (Zabel, Peterson, & Smith, 1988). This study found no significant differences between resource and self-contained teachers with respect to the activities of teaching, preparation/planning, evaluation, consultation/indirect services, or other miscellaneous activities. These results led the researchers to speculate whether any meaningful differences exist between the service provided by resource and self-contained teachers (in this case) or whether these two programs are simply different places where behaviorally disordered students are taught.

Perhaps the overriding culprit is the lack of written program descriptions in the field of behavioral disorders that would assist in the development of well designed and effective programs. In a recent national survey by Grosenick, George, and George (1988) only 37% of the districts surveyed had written descriptions of the instructional methods and curriculum for their programs for the seriously emotionally disturbed. These results seem to suggest that systematic differences between programs will not be easily attained until the programs themselves are systematically described and explicated for the benefit of the entire profession. For, as these author point out, certain program components must be established before a teacher can effectively assert her/his competence within that program. Often the shortcomings of the program rather than the shortcomings of the teacher create the problem (Morse, 1976). With respect to the state of programs for the behaviorally disordered, Grosenick,

George, and George (1988) arrived at a general conclusion that had been previously expressed by other authors as well (Grosenick & Huntze, 1983; Lakin, 1983; Kauffman et al., 1985) - that while many quality programs are likely to exist, few are comprehensively described on paper. And, as Kauffman et al. (1985) have indicated, this lack of written description is most certainly a hindrance to the development of quality services for the behaviorally disordered.

Support Services and Prereferral Activities

The Iowa Rules of Special Education (1985) describe special education support programs and supplemental services in section 12.5 (7). "Supplemental services. Services provided by special education personnel for pupils requiring special education include: (a) Provision of information, consultation and support to classroom teachers, curriculum specialists, special education personnel and administrators; (b) Supervision and training of aides; (c) Inservice training of personnel providing or being prepared to provide special education; (d) Parent and pupil counseling and instruction; (e) Demonstration of special education procedures and techniques; (f) Curriculum development activities; (g) Assessment, consultation, pre-evaluation activities, program planning, and referral and coordination with community agencies and services" (p. 8). These service are provided by a variety of special education support personnel in accord with their training and certification. For the purposes of this study, we have organized the services into three types: (1) student service, (2) teacher services, and (3) parent services. The first category represents services provided directly to the student while the latter

two categories refer to services to the student that are provided in an indirect manner, either through the teacher or the parents.

The personnel involved and provision of these services vary depending on the program, the pupil's needs, and the expertise of the persons involved. With behaviorally disordered students those support personnel typically providing the bulk of these services are the consultant, school psychologist, or school social worker. Each of these persons represents a different area of expertise and the services provided by them are intended to complement each other, even though provision of services may often overlap. These positions are defined as follows in the Iowa "Rules" (1985, p. 20):

"Consultant is the special education instructional specialist who provides ongoing support to those special education instructional programs for which the consultant is authorized by the department to serve. The consultant participates in the identification and program planning of pupils who are handicapped; demonstrates instructional procedures and techniques; assists in the development of curriculum and special instructional materials; assists in attaining the least restrictive environment appropriate for each handicapped pupil; and, assists in providing inservice training to special education and general education staff regarding the education of handicapped pupils."

"School psychologist assists in the identification of needs regarding behavioral, social, emotional, educational and vocational functioning of pupils; analyzes and integrates information about behavior and conditions affecting learning, consults with school personnel and parents regarding planning, implementing and evaluating individual and group interventions; counsels with parents, pupils and families; provides parent and teacher inservice

education; and, conducts applied research related to psychological and educational variables affecting learning."

"School social worker enhances the educational programs of pupils requiring special education by assisting in identification and assessment of the pupils' educational needs including social, emotional, behavioral, and adaptive needs; provides intervention services including individual, group, parent and family counseling; provides consultation and planning; and, services as liaison among home, school and community."

Within the area of support services, one that requires special attention is that of prereferral activities. Prereferral activities have been receiving increased attention in the special education literature (Graden, Casey, & Bonstrom, 1985a; Graden, Casey, & Christenson, 1985b) and have been the focus of efforts by the Iowa Bureau of Special Education to promote the involvement of support personnel with pupils prior to the initiation of a comprehensive evaluation (Iowa Department of Education, Bureau of Special Education, 1986). This increased emphasis by the Iowa Bureau is reflected in the addition of such services to the Iowa "Rules" (1985) as an explicit component of the pupil identification process. Pre-evaluation activities are described in the Iowa "Rules" (1985) as follows:

Prior to an initial comprehensive evaluation, the agency shall attempt to resolve the presenting problem or behaviors of concern. These attempts may include teacher consultation with special education personnel, however, special education personnel shall neither collect new pupil-specific data nor conduct an evaluation. The attempts to resolve a problem shall be documented; the

parameters of a comprehensive evaluation identified; and, parental permission obtained for a comprehensive evaluation if indicated (p. 14).

Parts of this project attempted to examine both the support services provided to behaviorally disordered students and the degree to which pre-evaluation activities were being used and documented. Each of these areas is an important indicator of the overall quality of the educational service being provided to behaviorally disordered and potentially behaviorally disordered students.

Exit/Integration Procedures

Grosenick, George, and George (1987) in summarizing the results of their national survey noted that "while districts seem to have spent much time and effort in creating formal referral and assessment procedures, much less attention has been given to developing exit procedures, that is, procedures used to determine at what point a student is no longer in need of special education services" (p. 166). In fact, of the districts that responded to their survey, only one-half indicated that their exit procedures for BD students existed in written form. Similar findings in the earlier study of Morse, Cutler, and Fink (1964) led them to conclude that it seemed considerably easier to get a child into a program for the behaviorally disordered than to get him/her out. Some of the basis for their conclusion may be: (1) the apparent difference in the formality of the two processes, and (2) the lack of "disturbingness" of a child's behavior who has made progress and is preparing to exit a program. With respect to the former, the exit process does not contain the strict regimented formality that

characterizes the procedural safeguards inherent in the entry process. Typically, when a change has occurred in the student's behavior and IEP goals have been met, exit or reintegration into a less restrictive setting is considered and the decision-making process begins. This process should include active communication between professionals and parents, but the formal structure of a pre-placement evaluation is absent. Additionally, when being considered for exit or reintegration, by definition, this student's behavior is less disturbing to those around him/her. Part of the impetus for change that is always a force in the pre-placement evaluation is thus absent. It is much easier to make a leisurely, thoroughly considered decision when troubling behaviors by the student are not troubling others.

However, reintegration into less restrictive environments or exit from special programs altogether is a very important aspect of the special education process that can potentially proceed in a variety of ways (Swan, Brown, & Jacob, 1987). To proceed in a systematic and orderly (if informal) fashion seems very necessary. For programs to have a specified and pre-planned procedure in place might be a good indicator of an effective program.

Rationale for the Current Study

With the call for greater explication and description of BD programs in the literature (Grosenick & Huntze, 1983; Lakin, 1983; Grosenick, George, & George, 1987, 1988) the need for this information seems to have been clearly established. Efforts are in progress to provide this data at the national level with the National Needs Analysis Project in Behavior Disorders (Grosenick,

George, & George, 1987). These efforts are valuable, but are also very broad and as such their usefulness may be limited by their breadth.

Other research efforts investigating various aspects of programs for the behaviorally disordered are also informative, but at times present somewhat of a fragmented picture since they have sampled from individual school districts or the Area Education Agency level in Iowa. A comprehensive set of data of Iowa BD students and the programs that serve them is currently not available. Since the bulk of the control, administration, and policy-making within the field of special education occurs at the state level, the sort of information provided by this study should prove to be a valuable resource in assessing the state of education for the behaviorally disordered. This project was designed for the purpose of documenting and assessing current practices in Iowa and providing a base from which these practices can be evaluated.

Method

Questionnaire

The questionnaire was developed by the author using information from a variety of sources. The basic format of the questionnaire was adapted from the Iowa Mental Disabilities Research Project (Reschly, Robinson, Volmer & Wilson, 1988d). This basic framework was then modified to reflect behavior disorders content and enhanced with additional items. Some of the items represent an adaptation of the content of the Iowa Assessment Model in Behavior Disorders (Wood, Smith & Grimes, 1985). Other items were adapted from the National Needs Analysis Project in Behavior Disorders (Grosenick, George & George, 1987) while still others were created by the author through consultation with other special education professionals. The preliminary, first-draft data collection instrument was then reviewed by a panel of special educators from the Iowa Department of Education and the Des Moines Community School District. Revisions generated as a result of this review were incorporated into the questionnaire. The revised version of the questionnaire was then reviewed by a panel of supervisors and administrators from the Area Education Agencies (AEA). Some additional revisions from this review were also incorporated into the questionnaire, resulting in the final version (see Appendix A).

The questionnaire consisted of two parts of 11 and 7 pages, respectively. The first part, printed on green paper, was used to obtain demographic information for students and teachers as well as information regarding the student's educational history, educational program, and most recent preplacement evaluation as completed by the multidisciplinary team. The

demographic information requested for both teachers and students included sex, race, and age. In addition, the grade level of the student and the education and certification of the teacher were requested to provide the background information necessary for meaningful analysis. At the program level the requested information included the official program disability description, status of the program, and enrollment figures for the program. This information, then, allowed the study to demographically profile the students, teachers, and programs in the sample. Educational history information was obtained through both open-ended and objective items and included items that asked about the student's past classifications and placements as well as retention. Information about the student's current program was also solicited here with questions regarding recommended vs. enrolled program, supplemental services received by the student, medical or psychiatric care, and length of the student's school day. The largest subsection of Part I was concerned with evaluation data. It included items requesting information from the student's academic and intellectual evaluation as well as the evaluation information pertaining to psychological, social, and emotional deficits related to the student's behavioral disorder. This section also gathered information on evaluation procedures and prereferral intervention documentation. These items were important in allowing the study to ascertain the types of procedures being used in the evaluation and diagnosis of behaviorally disordered students.

The second portion of the questionnaire, printed on blue paper, was used to obtain information regarding the student's individualized education program, the student's classroom curriculum, the support services provided to the student, and the integration/exit procedures used in the student's program.

The subsections contained within the second part of the questionnaire were aimed at delineating the treatment and programming being provided to the student. The IEP information obtained allowed the study to make comparisons to determine if deficits identified through the evaluative process were reflected in the student's IEP goals or objectives. Descriptions of the curriculum components contained within the student's classroom were obtained to determine the nature of these classrooms. Additionally, ratings were obtained from teachers identifying the areas of curriculum and intervention emphasized for each student. This information allowed the study to gather data suitable for comparisons across program models and across levels of disability severity. A rather extensive subsection of Part II requested information on support services provided to the student, teacher, and parent(s) of the student, again allowing the study to delineate the nature of the services and make comparisons across students and programs. Finally, information was requested regarding the integration and exit procedures for programs sampled in the study. This information is an important component in determining the quality of service provided by programs since it reflects the degree to which integration and exit procedures are in place, formalized, and allow smooth and effective transitions for students.

Subjects/Sampling Plan

The subject pool for this study was the population of behavior disordered students in Iowa as listed on the December 1, 1987, weighted enrollment index roster. From this pool, a 10% sample stratified by AEA and special education program model was randomly selected by computer at the Bureau of Special

Education. This randomly selected sample resulted in a final group of 632 students. The proportion of students randomly selected from each AEA and each special education program model within that AEA reflected the proportions present within each of those respective categories in the total subject pool. The final sample was then printed, by student identification number, on a list of labels which also contained the student's AEA number, program model designation, and the name and certification number of the student's teacher. Students' names did not appear anywhere on the label.

In some instances the random sample generated by the computer resulted in an unreasonably heavy amount of data collection for some teachers (multiple students from the same classroom). In order to maintain a reasonable work load for those teachers, AEA personnel were allowed to substitute a student of the same sex from another classroom of the same program model.

Thus, the potential integrity of the sample might have been compromised in one of two ways. These potential biases include: (1) the replacement procedure of 70 students in the original sample; and (2) the differential rates of completion of the surveys by each AEA as reflected in the return-rate data.

Procedure

Preliminary Work

The first step in this project involved the presentation of the project to the AEA Directors of Special Education at one of their regularly scheduled meetings. This presentation was done by the Bureau of Special Education consultant for behavior disorders where the directors discussed, commented on,

and expressed support for the project. Next, a contact person was established at each AEA to coordinate activities associated with the project, and to act as a conduit for communication between the project co-investigators and the persons involved with data collection. In most cases, the contact person was the supervisor of the special education consultants or that person in charge of instructional programs. Subsequently, a telephone conference call was held with the project co-investigators, the Bureau of Special Education consultant for behavior disorders, the AEA contact persons, and other AEA supervisors. The teleconference allowed this group to comment on the proposed project, the content of the questionnaire, the proposed data collection methods, and to provide suggestions to facilitate the collection of data. Finally, three questionnaires were sent out as a pilot procedure to allow feedback from those persons who would eventually be involved with data collection. Aspects of the feedback and comments from all of these preliminary procedures were incorporated into the final versions of the data collection instruments and procedures.

Data Collection

All questionnaires were identified with an in-house identification number for record keeping purposes. Other information that was included was simply transferred from the printed computer labels and included the student's official roster identification number, the AEA number, and the name of the student's teacher. The confidentiality of the student was thus protected since the co-investigators did not have access to student names nor did the name of the student appear anywhere on the questionnaire. Once the identification

numbers were marked on the questionnaires, they were sorted by AEA and mailed in bundles to each of the contact persons with a cover letter. A phone contact was also made at this time to insure that the questionnaires were received and to answer any questions they might have regarding data collection procedures. These contact persons then were responsible for the distribution of the questionnaires to their respective staffs. The AEA staff member completed Part I (green) of the questionnaire using information from the student's special education file and distributed the second part (blue) to the student's teacher for completion. The AEA staff member then collected the teacher-completed portion and returned the entire completed questionnaire directly to the researcher in a self-addressed envelope that had been provided. In some cases the completed questionnaires were collected, held, and returned to the researcher in bundles depending on the preference of the contact person. The return postage was paid by the AEAs.

Approximately six weeks after the original mailing of the questionnaire, follow-up letters were sent. Additional telephone contacts were also made with some of the contact persons throughout the data collection process to answer questions and/or respond to concerns.

Coding and Data Entry

The coding of the raw data was completed by the author and student assistants at Iowa State University (ISU). This coding involved the conversion of the raw data to a numerical format according to a system developed by the researcher. The coded data were then entered onto computer tape by employees

of the ISU Computation Center. Further computer work necessary for data analysis or other data manipulations was performed by a graduate student in psychology with advanced computer expertise.

Results

Return Rate

Of the 632 data collection instruments sent, 463 were returned with usable data for an overall return rate of 73.3%. An additional 59 (9%) were returned incomplete because the student had moved out of the district or was no longer in that particular BD program to which the questionnaire had been sent. Of the total number sent then, 522 (83%) were accounted for in some fashion.

The return rate varied by AEA with the range being from 6% (AEA 14) to 100% (AEA 4). A summarization of the return rates by AEA is contained in Table 1. Most of the AEAs returned large portions of the questionnaires sent to them with only two AEAs returning less than 60%. The individual AEA return rates and the overall rate of return were quite good for a project of this nature and are reflective of a highly representative sample.

The return rate varied only slightly according to program model, with the RTP student's questionnaires being returned at a slightly higher rate than those from the other program models, which were essentially equivalent. These results are contained in Table 2. These percentages, by program model, indicate that failure to return questionnaires was not related to the program model in which the student was enrolled, thus permitting valid comparison of data across program models.

One negative aspect of the return-rate data was the number of students who were substituted in the sample. A total of 70 students (15% of the questionnaires returned) were substituted because of the heavy workload resulting from the random sample procedure selecting multiple students from

Table 1

Return Rate by AEA

AEA	Sample	Actual	%
1	26	21	81
2	31	16	52
3	30	18	60
4	13	13	100
5	29	23	79
6	27	8	30
7	89	88	99
9	49	45	92
10	45	35	78
11	145	98	68
12	37	27	73
13	48	32	67
14	16	1	6
15	25	22	88
16	22	16	73
Total	632	463	73

Table 2

Return Rate by Program Model

Program model	Sample	Actual	%
RTP	218	166	77
SCIN	159	108	70
SCC	151	103	70
SC	104	72	72
Total	632	449	71

single classrooms. This occurred primarily in AEAs 7 and 11. The contact persons in these AEAs were given permission to substitute students of the same sex and program model. The substitutions that occurred represent 44% of the total returned from AEA 7 and 31% of the total returned from AEA 11.

Characteristics of StudentsRace

The distribution of the students among racial categories is contained in Table 3. These figures indicate that the overwhelming majority of the students in the sample were Caucasian (93%) while 6% of the students were Black. The remaining 1% was comprised of American Indian, Hispanic, and Asian students. These figures contrast with those of the total student population,

where during the 1987-88 school year only 2.6% of the student population was Black. Significant differences in the racial composition of students in different program models or with different disability weightings did not exist in this sample.

Table 3

Student Race By Program Model

Model	Group									
	American Indian		Black		Hispanic		Asian		Caucasian	
	N	%	N	%	N	%	N	%	N	%
RTP	0	0	9	6	1	1	0	0	143	93
SCIN	0	0	4	4	1	1	1	1	93	94
SCC	2	2	9	9	0	0	0	0	87	89
SC	1	2	2	4	0	0	0	0	50	94
Total	3	4	24	23	2	2	1	1	373	93

Sex

The sex distribution of students in the Iowa programs for the behaviorally disordered are contained in Table 4. Of the students for whom this item was completed (430) 82% were male and 18% were female, indicating a

Table 4

Distribution of Students by Sex

	Male		Female		Total	
	N	%	N	%	N	%
Student sex by program model						
Model						
RTP	118	78	33	22	151	37
SCIN	85	83	17	17	102	25
SCC	81	82	18	18	99	25
SC	46	89	6	11	52	13
Total	330	82	74	18	404	100

Student sex by grade						
Grade						
1	9	75	3	25	12	3
2	13	76	4	24	17	4
3	23	77	7	23	30	7
4	26	87	4	13	30	7

Table 4 (continued)

	Male		Female		Total	
	N	%	N	%	N	%
Student sex by grade						
Grade						
5	25	86	4	14	29	7
6	32	86	5	14	37	9
7	39	81	9	19	48	11
8	53	87	8	13	61	15
9	40	85	7	15	47	11
10	41	75	14	25	55	13
11	30	83	6	17	36	9
12	11	61	6	33	17	4
Total	342	82	77	18	419	100

substantial overall overrepresentation of males in these programs by a ratio of 4.5:1. The sex distribution of the students in this sample varied as a function of program model with lessening degrees of restrictiveness being associated with higher percentages of female students. Also, the sex distribution varied as a function of grade level. Grades 1-3, 10 and 12 tended to have significantly

greater percentages of females. The overall trend was for males to dominate the middle grades (4-9) of the BD population.

Age

The mean age for the entire sample was 166 months (13.8) years. There was no difference between the mean age of the males and females in the sample. Differences in age were apparent between students with different weightings and also between students in different program models. These results are contained in Table 5. Analysis of variance procedures indicated statistically significant between-groups differences in students' ages as a function of the disability weight, $F(2,433) = 9.00$, $p = .0001$, and program model, $F(3,416) = 4.44$, $p = .004$. Post hoc Newman-Keuls multiple range tests ($\alpha = .05$) revealed that students with a 2.2 weighting were significantly younger than the 1.7 or 3.6 weighted students and that students in RTP and SCIN programs were significantly older than those students in SCC programs. It should be noted that these age differences, while statistically significant, were measured in months, and thus do not translate into large practical differences in all cases. Nevertheless, these differences are indicative of trends for treatment of older students in the less restrictive RTP and SCIN program models rather than in the SCC model. The differences in age between students with different weights sheds some light on these program differences. With the 2.2 students having been younger it appears that the bulk of those SCIN students in this sample were of the 1.7 variety. The 2.2 weighted SCC option was more prevalent at younger age levels while the 1.7 weighted RTP, SCIN and the 3.6 weighted SC programs were more prevalent with older students.

Table 5

Chronological Age Distribution of Students

Chronological age by disability weighting					
Weighting	N	Mean	S.D.	Max.	Min.
1.7	263	14.2	3.0	22.7	3.0
2.2	106	12.7	3.1	20.0	6.9
3.6	67	13.9	3.1	19.5	4.9
Total	436	13.8	3.1	22.7	3.0
Chronological age by program model					
Program model					
RTP	157	14.0	3.0	22.7	3.0
SCIN	106	14.5	3.1	21.3	6.9
SCC	101	13.0	3.2	20.0	8.0
SC	56	13.6	3.1	19.5	4.9
Total	420	13.8	3.1	22.7	3.0

Grade

The grade distribution is shown in Table 6 and indicates that the peak of the prevalence rate occurs in grades 7-10. These four grades accounted for nearly half (49.9%) of that portion of the sample who responded to this item.

Additionally, a definite increasing trend was observed from kindergarten up to these peak years with a subsequent decline in the grades after the peak.

Educational History

Educational history information was gathered through items that requested information from the student's special education file maintained by the AEA support staff member. These items solicited information regarding retention, previous disability classifications, previous classroom model enrollments, and previous disability weightings. These items were included for the purpose of identifying trends in the educational experiences of BD students and thus providing insight into the nature of their progression of educational experiences. This information provides, in some cases, clues regarding how students become classified by examining the nature of their previous educational placements as well as disability and weighting classifications.

Retention. Information regarding retention is contained in Table 7. Of the students in the sample for whom this item was completed (368) 30% had been retained at some point in their school career previous to the time of this study, while 70% of the students had not been retained. The percentage of the students who had been retained did not vary as a function of the student's sex

Table 6

Grade Distribution For Total Sample

Grade	N	%
K	2	<1
1	13	3
2	17	4
3	33	7
4	34	8
5	30	7
6	37	8
7	52	12
8	63	14
9	47	11
10	56	13
11	39	9
12	18	4
Total	441	100

since it was indicated that equal proportions of males and females had been retained. A comparison of the retention percentages by weight indicates a statistically nonsignificant trend for proportionally fewer students in 3.6 classes to have experienced retention. Further comparison of retention proportions by program model indicates that those students with less restrictive weightings who have been retained tend to be more prevalent in SCIN programs rather than RTP programs.

Previous classification. Information on the previous classifications of the students was obtained through open-ended items that asked respondents to list, in chronological order, the classifications and placements of the student as indicated in the student's educational history. This data included a listing of the disability classification, program model placement, and weighted enrollment of the student in that placement. Also, this portion of the questionnaire was somewhat difficult to code and analyze and, as a result, not as reliable as other portions of the questionnaire.

The most frequent disability classification previously held by these BD students was that of learning disabled (LD) with 18% of the students having been previously diagnosed and classified as LD. Eight percent of the students had been previously classified as mentally disabled. No other disability classifications (physical handicap, communication disorder, multiple handicaps) were present for more than 1% of the students. Of the total number of students in the sample, 72% had not been classified as other than behavior disordered, 26% had held one classification other than BD, 2% had held two classifications in addition to their present one, and one individual (.2%) had held four separate classifications at different points in his/her education. These data, taken

Table 7

Retention

Retention by disability weighting						
	Yes		No		Total	
	N	%	N	%	N	
Weighting						
1.7	71	32	151	68	222	
2.2	27	30	64	70	91	
3.6	12	24	38	76	50	
Total	110	30	253	70	363	
Retention by program model						
Model						
RTP	34	26	98	74	132	
SCIN	34	39	54	61	88	
SCC	26	30	61	70	87	
SC	13	33	26	67	39	
Total	107	31	239	69	346	

together, indicate that over one quarter of the BD students in this sample had previously held a separate diagnosis and of that group, most had been previously classified as learning disabled. This finding reflects the complex nature of behavioral disorders and illustrates that other psychoeducational disorders are often present for BD students and may, in fact, be involved in the etiology and development of the behavior disorder.

With respect to placement options, the mean number of different program models through which students had been served was 2.4 (including regular education placement). The largest proportion (65%) of the students had been in two different program models, 28% had been in three different program models, 6% had been in four different program models, and 1% had been served in 5 different program models (including regular education placement). These data indicate that nearly two-thirds of the students in the sample had been in only one special education program model in addition to a regular education placement and only 7% had been in more than two different special education placements in addition to being in regular education. These percentages seem to reflect relative stability of program model placements for these youngsters, as a group. Proportionally few students had traveled the entire route of placement steps up through the cascade.

Related to program model are the different enrollment weightings in the youngster's education history. Results, as expected, were similar. The range of weightings in this data includes a weighting of 1.0 for regular education in addition to the special education weightings of 1.7, 2.2, and 3.6. Eighty-nine percent of the students had a history that included two different weights, 10% had an educational history with three different weights, and only 1% had a

history with four different weightings. These data also seem to indicate stability in the classification and placement of the majority of BD students in Iowa. Some of this stability would be expected simply as a by-product of the fact that the largest proportion of the students in Iowa BD programs are mildly disabled and in less restrictive program models. However, this stability may also be indicative of services that are provided in a quality manner and are meeting the needs of the student in an appropriate program. Appropriate placements generally do not result in large numbers of movements between programs, but are able to meet the student's needs in the original placement. Some movement is to be expected as a function of the occasional misjudged prognosis, deterioration due to external factors, or the inescapable error contained in any classification and placement procedure. To have kept interprogram movement to a minimum reflects well on the quality of service the BD students in Iowa are receiving.

Outside-agency evaluation. Of the students in this sample for whom this item was completed (431) 52% had undergone an evaluation at an independent agency outside of the school system or AEA. Of the students who had been evaluated by an agency outside of the educational system, the largest proportion (39%) were seen in private or university hospital settings while others were evaluated at Community Mental Health Centers (17%), clinics (16%), or by private practitioners (14%). Other sites that were used in small proportions included residential treatment facilities, State of Iowa MHI facilities (e.g., Cherokee, Independence), and family service agencies.

The proportions of students who had undergone an outside evaluation differed as a function of the disability weighting of the student, chi-square (2,N

= 423) = 18.93, $p = .0001$. These results are summarized in Table 8. Independently performed evaluations were more frequently performed for students with higher disability weights (2.2, 3.6) indicating that the evaluations were completed in response to increased severity of the student's problem behavior. The proportions of both 2.2 and 3.6 students who had outside-agency evaluations were greater than the proportion of 1.7 students who were evaluated independently. However, there was virtually no difference between the 2.2 and 3.6 students on this dimension, indicating that no distinction was made between these two groups of students with regard to their respective needs for independent, outside-agency evaluations.

Medical/Psychiatric

Approximately 21% (89) of the students in the sample for whom this item was completed were indicated to be taking prescribed medication as treatment for their behavioral disorder while the remaining 79% were taking no medication. Of those taking prescribed medication, nearly one-half (48%) were taking Ritalin, either alone or in combination with another drug. The second most frequently listed medication was Mellaril (10%) which is an anti-psychotic medication, followed by Dexedrine (6%). These medications seem to indicate that the majority of medical/pharmacological treatment for BD youngsters consists of intervention aimed at behavioral problems related to hyperactivity, attention deficit disorder, or some combination of the two, since intervention for such problems often involves stimulant medication. The remaining listed medications included anti-depressants (imipramine, desipramine) and

Table 8

Frequency of Outside-Agency Evaluation for Total Sample and by Disability Weight

Outside evaluation	N	%	
Yes	225	52	
No	206	48	
Total	431	100	

Disability weight	Outside evaluation		
	% Yes	% No	Total
1.7	44	56	100
2.2	64	36	100
3.6	65	35	100

Overall response pattern: chi-square (2, $N = 423$) = 18.93, $p = .0001$

anti-psychotics (cylert, thorazine), hydropine (for Tourette's syndrome), and Tofranil (imipramine) which was indicated as treatment for enuresis. There is no source of information with which to compare these rates of medication use. Depending on one's perspective and philosophical approach to treatment, 21%

may appear to be an entirely reasonable level of medication use or may seem unnecessarily high. When the frequency of use was analyzed by severity of disorder, the expected results occurred with a much larger proportion, chi-square (2, $N = 415$) = 23.83, $p = .0000$, of more severely disordered students (2.2, 3.6) taking prescribed medication (see Table 9). In this light, the overall level of 21% does not seem to be out of line.

Table 9

Medication Use by Disability Weighting

Weighting	Yes		No		Total
	N	%	N	%	N
1.7	33	13	214	87	247
2.2	34	32	71	68	105
3.6	22	35	41	65	63
Total	89	21	326	79	415

Overall response pattern: chi-square (2, $N = 415$) = 23.83, $p = .0000$

Another item attempted to ascertain the frequency with which Iowa BD students had been provided with a psychiatric diagnosis via the Diagnostic and Statistical Manual of Mental Disorders - Third Edition (DSM-III; American Psychiatric Association, 1980). Of the students for which this item was completed, 19% (70) were described as having a DSM-III diagnosis. This figure is much lower than that indicated in another study (McClure et al., 1989) which found nearly one-half of students in classrooms for the seriously emotionally disturbed to have at least one psychiatric disorder. The discrepancy between these results is due to two factors. One, this sample contains many mildly disordered students rather than only seriously disturbed students and two, it is probably very likely that many more students in Iowa BD programs would fit diagnostic criteria, but never undergo a psychiatric evaluation. When the severity of the disorder is considered, these data on the frequency of psychiatric diagnosis begin to approach the level of the McClure study (see Table 10). The proportion of students with psychiatric diagnoses significantly increased with increases in disability weighting up to 40% for the 3.6 students, chi-square (2, $N = 370$) = 21.55, $p = .0000$.

In many cases where the respondent indicated that the student had a DSM-III diagnosis, the diagnosis itself was not listed. The most frequent diagnosis that was listed was some form of attention deficit disorder (ADD) either with or without hyperactivity ($n=28$, 40%). Other reported disorders included conduct disorder (9), oppositional disorder, anxiety disorder, undersocialized, socialized aggressive disorder, borderline personality, depressive disorder, and autism. The latter categories had frequencies of three or less.

Table 10

DSM-III Diagnosis by Disability Weighting

Weighting	Yes		No		Total
	N	%	N	%	N
1.7	30	14	191	86	221
2.2	16	18	73	82	89
3.6	24	40	36	60	60
Total	70	19	300	81	370
Overall response pattern: chi-square (2, <u>N</u> = 370) =21.55, p=.0000					

Intellectual

Almost all (99%) of the intellectual data reported for the students was obtained via an assessment using one of the Wechsler Scales. Other instruments (Stanford-Binet, Kauffman-ABC) accounted for only 1% of the intellectual assessments. Such exclusive use of the Wechsler instruments may result from the fact that assessment of intellectual ability is not a central component of BD diagnosis. A comparison with data from the Iowa MD Research Project indicates that the Wechsler Scales were used in 80% of the

assessments for MD students (Reschly, Robinson, Volmer, & Wilson, 1988d), where a variety of instruments may be used because of the necessity for more accurate assessment of intellectual functioning that is central to MD diagnosis.

The intellectual ability of the students in the sample is described in Table 11. Of the 463 students on whom data was reviewed, at least a Full Scale IQ score was provided for 400 of those students. Other student's data also included Verbal and Performance IQ scores as well. The overall mean of the reported IQ scores was 95 for the Full Scale, 93.5 for the Verbal IQ, and 97.5 for the Performance IQ.

Differences were obtained with this sample when an analysis of variance (ANOVA) was performed to examine differences in IQ among students with different disability weights (1.7, 2.2, 3.6). The results of the ANOVA for Full Scale IQ revealed a significant effect, $F(2,397) = 4.77, p = .009$. A post hoc Newman-Keuls multiple range test ($\alpha = .05$) indicated that the IQs of students weighted 1.7 were significantly higher than those weighted 3.6. The same analysis by program model revealed a significant difference between RTP students and SC students, $F(3,376) = 3.53, p = .015$. One other interesting difference that occurred in the sample was a significant difference in the Full Scale IQs of male (96.2) vs. female (90.2) BD students, $F(1,383) = 12.55, p = .0004$.

Academic

Data regarding academic skill development was obtained for the students through solicitation of standardized achievement test scores from each student's

Table 11

Intellectual Functioning

Full scale IQ by disability weighting					
	N	Mean	S.D.	Min	Max
<hr/>					
Weight					
1.7	240	96.5	11.0	72	134
2.2	98	93.8	16.2	43	133
3.6	<u>62</u>	<u>91.1</u>	<u>14.2</u>	<u>45</u>	<u>127</u>
Total	400	95.0	13.1	43	134
Overall response pattern: $F(2,397) = 4.77, p = .009$					
Student-Newman-Keuls procedure at alpha .05 yield 1.7 > 3.6					

Full scale IQ by program model					
Model					
RTP	144	97.3	11.1	74	134
SCIN	93	94.6	10.5	69	126
SCC	94	93.8	16.8	43	133
SC	<u>49</u>	<u>90.8</u>	<u>13.4</u>	<u>45</u>	<u>127</u>
Total	380	95.0	13.0	43	134
Overall response pattern: $F(3,376) = 3.53, p = .015$					
Student-Newman-Keuls procedure at alpha .05 yield RTP > SC					

most recent psychoeducational evaluation. The respondents were asked to provide the name of the instrument used and percentile ranks for each of the academic areas assessed. A frequency of the instruments used is contained in Table 12. The Woodcock-Johnson Psychoeducational Battery-Tests of

Table 12

Instrument Used to Assess Academic Skills

Instrument	N	%
Woodcock-Johnson	308	78
PIAT or PIAT-R	17	4
WRAT or WRAT-R	26	7
Keymath	12	3
Other	10	3
Omitted	20	5
Total	393	100

Achievement was clearly the most popular choice of assessment instruments, accounting for 78% of all assessments. The percentile ranks for the academic areas of reading, math, written language and spelling, and knowledge and general information were then analyzed and compared. A summary of this information is contained in Tables 13 and 14.

Table 13

Academic Skill Percentile Ranks by Disability Weighting

Weighting	Reading			Math			Written lang.			Knowledge		
	N	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.
1.7	176	41.0	27.5	167	37.4	26.7	157	39.5	25.7	38	45.2	24.5
2.2	59	37.4	28.3	55	31.5	29.4	49	38.4	28.0	22	47.4	29.6
3.6	34	50.1	33.7	35	42.9	31.0	35	47.7	32.4	14	44.8	28.5
Total	269	41.4	28.6	257	36.9	28.0	241	40.4	27.3	74	45.8	26.5

Table 14

Academic Skill Percentile Ranks by Program Model

Model	Reading			Math			Written lang.			Knowledge		
	N	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.
RTP	107	43.1	26.4	98	39.5	26.8	93	41.4	25.8	18	53.2	20.3
SCIN	72	38.5	28.7	72	30.6	25.5	68	39.5	26.4	23	34.4	25.0
SCC	53	39.6	29.6	50	37.3	30.8	46	40.3	28.1	18	56.6	30.5
SC	26	48.2	37.1	26	42.7	31.8	26	44.8	35.3	7	36.0	26.3
Total	258	41.6	28.9	246	36.8	28.0	233	41.0	27.5	66	45.7	27.0

Overall, the academic skill levels of the BD students appear to be quite strong as the means of the percentile ranks averaged across the entire sample fell within the average range and were approximately commensurate with the reported IQ levels for the students. As a group, these BD students did not demonstrate severe academic skill deficits using national norm comparisons. These relative ranks would undoubtedly differ if comparisons were made to their Iowa peers, but one can only speculate about such comparisons. An analysis of academic skill levels by severity of disorder (1.7, 2.2, 3.6) revealed an unexpected absence of statistically significant difference between these three groups, in any of the academic areas. A similar lack of difference was found between the academic skill scores of students in different program models.

Characteristics of Teachers

Sex

Of the total number of students in the sample for which this item was completed, 77% had a female teacher while 23% had a male teacher. This proportion is nearly the reciprocal of the proportion representing student sex in the sample, indicating that most male BD students in Iowa are likely to have a female teacher while female BD students are very likely to have a teacher of the same sex.

The sex of the teacher also varied by program model, where the largest proportion of males were in SCC or SC classrooms; by age, where the largest proportions of male teachers were either over 56 years of age or in the range from 36-45; and by grade where the largest proportion of males were teaching in grades 7, and 9-12. For a complete summary of these results see Table 15.

Table 15

Sex Distribution of Teachers of BD Students

Sex by program model					
Program model	Male		Female		Total
	N	%	N	%	N
RTP	32	21	119	79	151
SCIN	20	20	82	80	102
SCC	24	24	75	76	99
SC	13	26	38	74	51
Total	89	22	314	78	403

Sex by grade					
Grade					
1	0	-	11	100	11
2	0	-	15	100	15
3	4	14	25	86	29
4	5	17	25	83	30
5	2	7	28	93	30
6	6	17	30	83	36

Table 15 (continued)

	Male		Female		Total
	N	%	N	%	N
Sex by grade					
Grade					
7	20	40	30	60	50
8	10	16	52	84	62
9	12	25	35	75	47
10	19	35	35	65	54
11	9	24	28	76	37
12	8	47	9	53	17
Sex by teacher age					
Age					
<25	5	16	26	84	31
26-35	37	22	133	78	170
36-45	36	27	99	73	135
46-55	11	21	42	79	53
>56	5	36	9	64	14
Total	94	23	309	77	403

Table 16

Racial Distribution of Teachers of BD Students

Race	N.	%
American Indian	3	<1
Black	2	<1
Hispanic	2	<1
Asian	0	--
Caucasian	424	98
Total	431	100

Race

The distribution of teacher race is contained in Table 16 and indicates that nearly all (98%) of the students in this sample had a Caucasian teacher. The remaining 2% was comprised of African-American, American Indian, and

Race

The distribution of teacher race is contained in Table 16 and indicates that nearly all (98%) of the students in this sample had a Caucasian teacher. The remaining 2% was comprised of African-American, American Indian, and Hispanic teachers in nearly equal proportion. There were no teachers in this sample who indicated their race was Asian.

Age

The largest proportion (43%) of the students in this sample had a teacher aged 26-35. Nearly as large (33%) was the proportion of students with teachers in the range of 36-45 years of age, indicating that teaching behavior disordered students tends to be a profession populated by younger individuals, with nearly 84% of the students having a teacher who was less than 45 years of age. Additionally, the age of the teachers varied as a function of the program model with younger teachers instructing proportionally higher numbers of students in the more restrictive programs. Complete information on teacher age is listed in Table 17.

Certification

The type of certification held by the teachers in this sample is summarized in Table 18. With respect to disability area, the largest number (45%) of students were being instructed by a teacher with multicategorical certification while 31% had a teacher with certification solely in the area of behavioral disorders. Other types of certification were also reported which

Table 17

Age Distribution of Teachers of BD Students

By program model											
Age											
<25		26-35		36-45		46-55		>56		Total	
N	%	N	%	N	%	N	%	N	%	N	
Program model											
RTP	3	2	50	33	53	35	36	24	8	6	150
SCIN	8	8	46	45	34	34	8	8	5	5	101
SCC	12	12	44	46	36	37	5	5	0	-	97
SC	7	14	29	57	11	21	4	8	0	-	51
Total	30	8	169	42	134	34	53	13	13	3	399
For total sample											
Age		N		%							
<25		32		7							
26-35		180		43							
36-45		141		33							
46-55		54		13							
>56		16		5							
Total		423		100							

Table 18

Certification of Teachers of Iowa BD Students

	N	%
Certification area		
Multicategorical	198	45
Behavior disorders (BD)	134	31
Learning disabilities (LD)	17	4
Mental disabilities (MD)	13	3
BD and MD	50	11
BD and LD	20	5
LD and MD	<u>6</u>	<u>1</u>
Total	438	100
Certification grade levels		
7-12	124	30
K-9	119	29
K-12	114	28
K-8	36	9
6-12	5	1
9-12	8	2
8-12	5	1
Pre-9	<u>1</u>	<u>-</u>
Total	412	100

included learning disabilities certification, mental disabilities certification, and various combinations of these three areas, the exact proportions of which appear in Table 18. Of interest are the proportion (8%) of students in the sample that were being instructed by a teacher without any behavior disorder certification whatsoever (LD, MD, and LD & MD categories), and those teachers with a multicategorical certification that does not include specific BD certification as a subcomponent. When the aforementioned multicategorical teachers are taken into account, this 8% figure then becomes an underestimate. While not alarmingly high, this figure does raise questions about the nature of the treatments these students are receiving and leads one to speculate about a possible shortage of qualified teachers, or perhaps an unwillingness for qualified teachers to work in smaller, rural programs.

Most of the students (82%) were receiving instruction from a teacher with full, permanent certification while the remainder (18%) had a teacher with temporary certification, most likely indicating that the instructor was in the process of completing necessary coursework towards the fulfillment of the certification requirements. Again, an apparent shortage of fully trained teachers seems to be indicated as teachers are completing their training after beginning in a position where they are working with BD students.

The grades for which the teachers were certified varied, with three categories accounting for the bulk (87%) of the certification levels reported. These three categories included 7-12 (30%), K-9 (29%), and K-12 (28%). Other students in the sample were receiving instruction from teachers with certification levels reported as K-8, 6-12, 9-12, 8-12, and preschool-9. The results of all these are also contained in Table 18.

Highest Degree Earned

The highest degree earned was evenly divided with 51% of the students having a teacher with a bachelor's degree, 48% having a teacher with a master's degree, and 1% of the students having a doctoral level teacher. These data seem to present a favorable educational picture and indicates a substantial commitment toward post graduate education and training for the teachers of Iowa BD students.

Program Description

Official Description and Status

A summary of the official description of the programs in which these students were enrolled is contained in Table 19. Approximately one-half (53%) of the students were in classrooms officially designated as behavior disorder programs while nearly as many (43%) were in programs classified as multicategorical. Only a very few students were enrolled in programs for the mentally disabled (2%) or the learning disabled (2%). Nearly all (91%) of the students were in programs having full-time status with the remainder (9%) being in part-time programs.

Size

The mean size of the programs for students in the sample was 11. However, as expected, this figure varied depending on the type of program in which the student was served with RTP's having a mean of 14 students, SCIN programs having a mean of 11 students, SCC programs 9 students, and SC programs having an average of 6 students. An analysis of variance (ANOVA)

Table 19

Program Description of Iowa BD Students

Program description	N	%
Behavior disorder	239	53
Mental disability	8	2
Learning disability	11	2
Multicategorical	<u>193</u>	<u>4</u>
Total	451	100

with post-hoc Newman-Keuls indicated that the observed variance was statistically significant, $F(3,405) = 75.21$, $p = .0000$, and that each group was significantly different from the others at the .05 level. The same procedure performed with student weighting (1.7, 2.2, 3.6) as the independent variable produced similar results. The mean class size of students weighted 1.7 was 13, 9 for those students weighted 2.2, and 7 for students weighted 3.6. This variance was also statistically significant, $F(2,422) = 74.84$, $p = .0000$, and each group was significantly different from the others at the .05 level. A summary of these results are contained in Table 20. It is interesting to note the slight difference between the means for the SC group and the 3.6 group. The larger size of the latter undoubtedly reflects those students weighted 3.6 that were served in a less restrictive program. In both cases (3.6 group; SC program model)

the mean of the actual class size was above that (5) recommended by the Iowa Rules of Special Education (1985) for the education of severely handicapped BD students.

Enrolled vs. Recommended Program

Of the students in the sample for whom information was provided regarding recommended program and enrolled program (449), approximately 8% (38) were enrolled in a different program from that recommended for them. Of these 38 placements, 53% of the students were enrolled in a program more restrictive than recommended while 47% were enrolled in a program less restrictive than that recommended. These differences between actual and recommended placement occurred across a variety of program models and are summarized in Table 21. As is evident from the table, the number of discrepancies between actual and recommended placement varied by program model with the largest number of cases (11) occurring where SCIN was recommended, but SCC was actually provided. In terms of percentage, the largest percentage of differential placements occurred at the extremes of the placement continuum where either regular education with support service or SC in a treatment setting had been recommended. The overall large percentage of students (92%) placed in the program model recommended for them indicates that in most cases the placement option recommended for a student was available.

Table 20

Program Size of Iowa BD Students

	N	Mean	S.D.
Program model			
RTP	151	14.5	4.4
SCIN	100	11.0	3.6
SCC	102	8.8	3.0
SC	<u>56</u>	<u>6.4</u>	<u>4.7</u>
Total	409	11.1	4.9

Overall effect: $F(3,405) = 75.2$ $p = .0000$
 Student-Newman-Keuls procedure at alpha .05 yield $SC < SCC < SCIN < RTP$

Disability weight			
1.7	251	13.1	4.4
2.2	108	8.9	3.6
3.6	<u>66</u>	<u>6.7</u>	<u>4.8</u>
Total	425	11.0	5.0

Overall effect: $F(2,422) = 74.8$ $p = .0000$
 Student-Newman-Keuls procedure at alpha .05 yield $3.6 < 2.2 < 1.7$

Table 21

Recommended Program/Enrolled Program Discrepancies for Iowa BD Students

Program model	Recommended N	# Enrolled in other program	%	Program actually enrolled (N)
Self-contained special class (treatment setting)	13	2	15	SC - 3.6 (2)
Self-contained special class	57	6	11	SCC - 2.2 (2); SCIN (2); (3.6) RTP (2)
Self-contained	99	8	8	SC - 3.6 (2); SCIN (3); (2.2) RTP (3)
Special class w/integration	109	11	10	SCC - 2.2 (7); RTP (4)
Home bound	2	0	--	--
Resource teaching program	156	7	4	SCC - 2.2 (2); SCIN (5)
Regular class w/aide	3	0	--	--
Regular class with special support	11	4	36	SCC-2.2 (1);RTP(2) Reg ed w/aide(1)
Total	449	38	8	

Supplemental Services

The percentages of students in the sample receiving supplemental services by: (1) an occupational or physical therapist; (2) a speech/language clinician; (3) an itinerant teacher for a vision or hearing impairment; or, (4) adaptive physical education are contained in Table 22. The proportion of students receiving these services was generally very low, suggesting that the vast majority of Iowa BD students do not have secondary disorders related to physical, visual, auditory, or speech/language abilities and that very few BD students have severe disorders that keep them from engaging in physical education with their non-handicapped peers.

Table 22

Supplemental Service Received by Iowa BD Students

Service	Yes	No	Total	% Yes
Occupational therapy/ physical therapy	8	402	410	2
Speech/language	34	375	409	8
Itinerant teacher (vision/hearing)	8	400	408	2
Adaptive physical education	12	397	409	3

Instructional Time Loss

A summary of the information concerning a shortened school day is contained in Tables 23 and 24. Of the students for whom this item was completed, 14% had their day shortened compared to other students at their attendance center; 9% because of busing, and 3% because of behavioral concerns (the remaining 2% were listed as other or omitted by respondents). As expected, these figures varied as a function of the severity of the students' disorders. The proportions of students with a shortened school day as well as the reason for the shortened day varied as a function of the student's weighting. In each case the trend observed was for a significantly increased percentage of students with shortened days at more restrictive disability classifications, chi-square (2, $N = 432$) = 40.19, $p = .0000$), and for proportionally more students to have their day shortened for behavioral reasons at the 2.2 and 3.6 levels whereas the percentage of 1.7 students with a shortened day for behavioral reasons was substantially smaller.

The amount of time (in minutes) that the student's day was reduced was also obtained and analyzed for differences as a function of the student's disability weighting and the reason for the shortened day (busing, behavior, other). The mean number of minutes lost by disability weight was as follows: 1.7 = 44 minutes, 2.2 = 49 minutes, and 3.6 = 54 minutes. An ANOVA examining the relationship between time lost and disability weight resulted in no significant differences. When the reason for shortening the students' day was considered, a significant effect was found, $F(2, 43) = 14.51$, $p = .0000$. Post

Table 23

Frequency of Students with a Shortened School Day by Reason for Shortening and Disability Weighting

	N	%
Type of school day		
day shortened	62	14
full day	<u>376</u>	<u>86</u>
total	438	100
Reason		
busing	43	9
behavior	13	3
other	3	1
missing	<u>3</u>	<u>1</u>
Total	62	14

Disability weight	Total sample	Shortened N	% of total
1.7	268	17	6 Busing=14(82%);Behavior=2(12%)
2.2	109	21	19 Busing=14(67%);Behavior=6(29%)
3.6	68	24	45 Busing=15(63%);Behavior=5(21%)

Overall response pattern: chi-square (2, N = 432) = 40.19, p=.0000

Table 24

Amount of Time Students Have Their Day Shortened As a Function of the Reason for Shortening

<u>Reason</u>	<u>N</u>	<u>Mean</u>	<u>S.D.</u>	<u>Max</u>	<u>Min</u>
Busing	32	39.8	22.5	90	10
Behavior	11	82.9	28.2	99	25
Other	3	30.7	16.2	40	12
<hr/>					
Total	46	49.5	30.0	99	10

Overall response pattern: $F(2,43) = 14.51, p = .0000$

Student-Newman-Keuls procedure at alpha .05 yield behavior > busing = other

Neuman-Keuls tests (alpha = .05) indicated that reductions of the school day for behavioral reasons (83 minutes) were much longer than those for busing (40 minutes) or other miscellaneous reasons (31 minutes).

Age Range

The mean age ranges for the total sample and for each of the different program models are listed in Table 25. In most cases the age range of the students was from 2-4 years although for some students it ranged as high as eight and as low as zero. The instances where the age range extended beyond 6 all occurred in the RTP or SCIN options. An analysis of variance of age range by

Table 25

Age Range of Students in BD Classrooms

	N	%
Age range		
0	9	2
1	30	7
2	86	21
3	116	29
4	77	19
5	54	14
6	19	5
7	7	2
8	2	1
Total	400	100

Program model	N	Mean	S.D.	Max.	Min.
RTP	132	3.4	1.6	8	0
SCIN	96	3.7	1.6	8	0
SCC	99	2.9	1.1	5	0
SC	50	2.9	1.4	6	0
Total	377	3.3	1.5	8	0

Overall response pattern: $F(3,373) = 6.90, p = .0002$
 Student-Newman-Keuls procedure at alpha .05 yield $RTP = SCIN > SCC = SC$

program model resulted in a significant effect, $F(3,373) = 6.90$, $p = .0002$. Post hoc Newman-Keuls tests at the .05 level indicated that RTP and SCIN options had significantly larger age ranges than did SCC or SC programs.

Evaluation

Information regarding evaluation procedures was gathered through items that asked respondents to review the student's special education file and report the types of evaluation procedures that had been used in assessing those aspects of behavior that are unique to the diagnosis of a behavioral disorder. This was accomplished by reviewing the most recent evaluation. In addition to reporting the procedures used, respondents also indicated which special education support personnel had been involved in the evaluation. In addition to procedural data, information was also gathered that identified the type and nature of the behavioral, social/emotional, academic, and other deficits identified through the evaluation. Finally, information was obtained that indicated whether a student had received an independent, outside-agency evaluation.

Type

The evaluations that these students had undergone were classified as either an initial placement evaluation, a three-year reevaluation, or other comprehensive evaluation. The proportions of students falling into each of these three categories are contained in Table 26. By far the largest proportion of the evaluations reviewed in this project were three-year reevaluations (41%)

with the proportions of initial evaluations and other comprehensive evaluations being smaller. These figures indicate that the largest percentage of the students in the sample had been served in a special program at least three years so that the most recent evaluation on file was the three-year reevaluation required by law.

Table 26

Type of Evaluation From Which Student Information was Reported

Type of evaluation	N	%
Initial placement	133	29
Other comprehensive	114	25
Three-year re-evaluation	192	41
Missing	<u>24</u>	<u>5</u>
Total	463	100

Procedure

Setting analysis. Setting analysis was assessed and explicitly addressed in 80% of the evaluations reviewed. In the remaining 20% it was not. In those cases where an evaluation of the setting was reported, it was most frequently conducted by the school psychologist. A breakdown of the personnel involved is contained in Table 27. The most commonly used procedures

Table 27

Summary of Personnel Involved and Procedures Used in the Evaluation of
Setting Analysis

Personnel	Frequency	%
School psychologist	109	36
School social worker	47	15
Special education consultant	46	15
Other	27	9
Combination of above personnel	<u>77</u>	<u>25</u>
Total	306	100

Procedure	% of use
Direct classroom observation, anecdotal recording	55
Record review, cumulative file	55
Teacher interview, general summary	50
Direct classroom observation, systematic method	46
Behavior rating scale	45
No specific method indicated, general summary	40
Student interview, self-report	36
Learning environment checklist, general summary	12
Sociometric data	8
Social skills inventory	6

reported to assess the area of setting analysis were a direct classroom observation with anecdotal recording, a review of the student's cumulative school record, and a general summary of the teacher interview. Least frequently used were social skills inventories, sociometric procedures, and learning environment checklists. These results are also contained in Table 27.

One of the primary aspects of the setting analysis is to document the pre-evaluation interventions that have been attempted to remedy the problem within the regular classroom. In the cases in this study where reported data were from initial placement evaluations, respondents were asked to indicate the existence of documented attempts at pre-referral intervention and also the nature of those attempts.

Of the initial placement evaluations reviewed in this study (133), 72% were indicated as containing documented attempts at pre-referral intervention, 14% did not contain such documentation, and 14% failed to respond to this item. Those cases that contained documented pre-referral intervention attempts were then analyzed to ascertain the frequency of the types of interventions attempted. This information is summarized in Table 28. A perusal of the list of interventions indicates that the most frequently used intervention was communication with the child's parent or guardian which occurred in 77% of the cases. Other frequently used interventions included classroom behavior management programs (65% of the cases), counseling (56%), office referrals/principal disciplinary action (50%), and modified instructional techniques (49%).

Table 28

Summary of Pre-referral Intervention Attempts by Category and Type of Intervention

Category	Total frequency	Mean per student ^a
Classroom intervention (CI)	303	3.2
School intervention (SI)	334	3.5
Family intervention (FI)	169	1.8
Community intervention (CMI)	105	1.1
Total	911	9.6

Type	N	%
Notes/calls/conferences with parent (FI)	68	71
Behavior management program (CI)	59	61
Counseling (SI)	51	53
Office referrals/principal disc. action (SI)	46	48
Modified instruction (CI)	44	46
Behavior contracts (CI)	37	39
Time out (CI)	32	33
After school detention (SI)	31	32
Coordination of behavior contracts/ Programs with home (FI)	31	32

^aData reported for 96 students.

Table 28 (continued)

Type	N	%
Building-wide behavior management program (SI)	30	31
Medical evaluation (CMI)	30	31
Participation in individual or family therapy (FI)	30	31

The effectiveness of the types of interventions attempted was indicated in 64% of the cases. These data are summarized in Table 29. Even though the trend seems to be for greater effectiveness of classroom and school interventions, analysis of variance indicated no statistically significant difference between these scores. Some explanation must be provided regarding the overall low magnitudes of the effectiveness rating scores. Of those cases, where effectiveness ratings were reported, the ratings indicate that the pre-referral interventions attempted were generally not effective. These low ratings were undoubtedly an artifact of the sample, since we included only students who were identified and were served in a BD program. Obviously, those

Table 29

Effectiveness of Pre-referral Intervention Attempts

Type of intervention	N	Mean	S.D.	Max	Min
Classroom	84	2.1	1.2	5	1
School	84	2.1	1.3	5	1
Family	81	1.8	1.4	5	1
Community	87	1.9	1.8	6	1

Note: No two intervention types significantly different (.05 level). Range: 6 = very effective to 1 = not effective.

students for whom pre-referral intervention had been effective would have never been placed in a program since successful intervention would have ameliorated the problem behavior.

Pupil behavior data. Pupil behavior data (PBD) was assessed and explicitly addressed in 92% of the evaluations reviewed. In the remaining 8% it was not. In those cases where PBD data was reported, it was most frequently performed by the school psychologist. A summary of the pupil behavior data results is contained in Table 30. Those procedures most frequently used to assess the area of pupil behavior data included a general summary of a behavioral observation (53%), the use of a behavioral rating scale (48%), and a general summary of a teacher interview (45%).

Table 30

Summary of Personnel Involved and Procedures Used in the Evaluation of Pupil Behavioral Data

Personnel	Frequency	%
School psychologist	124	35
School social worker	76	21
Special education consultant	27	8
Other	20	6
Combination of above personnel	106	30
Total	353	100

Procedure	% of use
Behavioral observation, general summary	53
Behavior rating scale	48
Teacher interview, general summary	45
Behavioral observation, systematic method reported	39
No specific method indicated, general summary	33
Parent interview, general summary	32
Parent rating scale	10

Table 30 (continued)

Frequency of specification of behavioral parameters	
Parameter	% specified
Frequency of Behavior	54
Intensity of Behavior	40
Duration of Behavior	35

The instruments used to obtain behavior ratings included a wide variety, at least 23 different rating scales. An exact figure cannot be provided because some of the scales listed were not familiar to the author and thus he could not be certain they actually represented a behavior rating scale rather than personality or self-concept measure. Those rating scales most frequently used were the Burk's Behavior Rating Scale (25%) and the Behavior Evaluation Scale (14%).

Individual trait data. Individual trait data (ITD) was assessed and explicitly addressed in 80% of the evaluations reviewed. In the remaining 20% it was not. In those cases where ITD was reported, it was most frequently performed by the school psychologist. A summary of the individual trait data is contained in Table 31. The procedures most frequently reported to assess this area included a general paragraph summary of a student interview (42%), a general paragraph summary with no specific assessment method indicated

Table 31

Summary of Personnel Involved and Procedures Used in the Evaluation of Individual Trait Data

Personnel	Frequency	%
School psychologist	147	54
School social worker	49	18
Special education consultant	11	4
Other	20	8
Combination of above personnel	44	16
Total	271	100

Procedure	% of use
Student interview, general summary	42
No specific method, general summary	40
Self-esteem inventory	36
Structure personality test	30
Projective test	23

(40%), and a structured self-esteem inventory (36%). Structured personality inventories and projectives were also used, but at slightly lower frequencies (30% and 23%, respectively).

Discipline involvement. A breakdown of the staff persons involved with each area of evaluation (SA, PBD, ITD) by the discipline of that person is provided in Table 32. The data indicate that the school psychologist was the person most frequently performing the evaluative function in each of the areas.

Table 32

Summary and Comparison of Staff Involvement with Evaluation

	Setting analysis		Pupil behavior data		Individual trait data		Total	
	N	%	N	%	N	%	N	%
Staff member								
School psychologist	109	36	124	35	147	54	380	41
School social worker	47	15	76	21	49	18	172	18
Special education consultant	46	15	27	8	11	4	84	9
Other	27	9	20	6	20	8	67	7
Combination of above personnel	77	25	106	30	44	16	227	25
Total	306	100	353	100	271	100	930	100

The second most frequently reported evaluator was not a single person, but a combination of disciplines. School social workers were third in frequency of responsibility for different portions of the evaluation. The conclusions to be drawn from this data were that all disciplines are involved in BD evaluations and the traditional role of the school psychologist as primary evaluator seems to be true here in Iowa. However, it is also apparent that many multidisciplinary teams were sharing the evaluation duties so that any one area of the evaluation was frequently completed by persons from more than one discipline. This seems to be a positive finding as divergent approaches to evaluation that may be brought to bear by different disciplines might result in a more thorough investigation of the referral problem.

Cluster diagnosis. Respondents were asked to indicate if the student's disorder had been diagnosed with respect to the behavioral clusters outlined in the Iowa Rules of Special Education (see page 13 of this document for a summary). The largest proportion (57%) of the students had not been identified by the cluster of behaviors that best fit their disorder. The remaining 43% of the students were identified by cluster. A summary of this data is contained in Table 33. Of those students identified by cluster (173) the majority (60%) were identified as Cluster I (disruptive, aggressive, or impulsive). Smaller proportions were identified as Cluster II (25%), Cluster III (7%), or Cluster IV (8%). It is difficult to generalize from these proportions to the entire BD population since these data were reported for fewer than half of the students, but the finding that over half of BD students are of Cluster I type makes

Table 33

Use and Specification of Iowa Definition Behavioral Clusters

Response	Delineation by cluster	
	N	%
Yes	173	43
No	<u>230</u>	<u>57</u>
Total	403	100

Cluster	Frequency of specification	
I - disruptive, aggressive, impulsive	104	60
II - withdrawn, anxious	43	25
III - deviant thought processes	12	7
IV - autistic	<u>14</u>	<u>8</u>
Total	173	100

intuitive sense. That fewer than half of the students were identified by cluster is disheartening and leaves one wondering how these students were identified or if they were simply "described" in evaluation reports.

Identified Deficits

Respondents were asked to list the deficits in the student's behavioral, social/emotional, academic, or other areas of functioning that had been identified through the evaluation and were a basis for making the BD diagnosis. These deficits were then coded into categories by the author and student assistants. This coding process was difficult and sometimes subjective as decisions were made to place responses into categories. Interrater reliability checks that were performed on 30 of the questionnaires resulted in an overall reliability coefficient of .87 and ranged from .85 to .88 between different raters. A general summary of the identified deficits, by category, and a comparison of identified deficits, by student disability weight, are contained in Tables 34 - 37. On average, more behavioral deficits were identified for students than were social/emotional or academic deficits. The most frequently identified behavioral deficit was in the area of academic behavior (on-task, assignment completion). This was also the most frequently identified deficit in general with 66% of the students having an identified academic behavior deficit. The most frequently identified social/emotional deficit that was also the second most frequently identified deficit overall was interpersonal relationships with peers. This deficit was identified for 60% of the students in the sample. Frequencies of other specific deficits may be seen in Tables 34 - 37. These frequencies are especially interesting since they begin to portray a representation of the students in the sample. For example, from this data we can reasonably portray a typical Iowa BD student as someone with difficulty staying on task, completing assignments, and maintaining appropriate relationships with his/her peers.

Table 34

Frequency of Identified Behavioral Deficits Contributing to the Behavioral Disorder

Total sample (N=463)			
Behavioral deficits	Rank	Frequency	%
Academic behavior	1	304	66
Compliance	2	171	37
Attention seeking behavior	3	165	36
Aggressive behavior	4	138	30
Impulse control	5	131	28
Inappropriate verbalizations	6	107	23
Accepting criticism/correction	7	69	15
Attendance in class	8	41	9
1.7 students (N=268)			
Academic behavior	1	193	72
Compliance	3	75	28
Attention seeking behavior	2	84	31
Aggressive behavior	5	65	24
Impulse control	4	68	25
Inappropriate verbalizations	6	44	16
Accepting criticism/correction	7	28	10
Attendance in class	8	24	9

Table 34 (continued)

	Rank	Frequency	%
2.2 students (N=109)			
Academic behavior	1	69	63
Compliance	2	54	50
Attention seeking behavior	3	45	41
Aggressive behavior	4	38	35
Impulse control	5	37	34
Inappropriate verbalizations	6	35	32
Accepting criticism/correction	7	21	19
Attendance in class	8	10	9
3.6 students (N=69)			
Academic behavior	2	37	54
Compliance	1	40	59
Attention seeking behavior	3	34	50
Aggressive behavior	3	34	50
Impulse control	6	23	34
Inappropriate verbalizations	5	38	41
Accepting criticism/correction	7	18	26
Attendance in class	8	7	10

Table 35

Frequency of Identified Social/Emotional Deficits Contributing to the Behavioral Disorder

Total sample (N=463)			
Social/emotional deficits	Rank	Frequency	%
Interpersonal relationships - peers	1	280	60
Self-esteem, self-concept	2	164	35
Social skills - general	3	126	27
Interpersonal relationships - adults	4	98	21
Responsibility, independence	5	92	20
Appropriate expression of feelings	6	85	18
Anxiety	7	84	18
Adjustment to change	8	23	5
1.7 students (N=268)			
Interpersonal relationships - peers	1	147	55
Self-esteem, self-concept	2	103	38
Social skills - general	3	61	23
Interpersonal relationships - adults	5	46	17
Responsibility, independence	5	46	17
Appropriate expression of feelings	7	45	17
Anxiety	4	60	22
Adjustment to change	8	11	4

Table 35 (continued)

	Rank	Frequency	%
2.2 students (N=109)			
Interpersonal relationships - peers	1	78	72
Self-esteem, self-concept	2	39	36
Social skills - general	3	36	33
Interpersonal relationships - adults	5	25	23
Responsibility, independence	4	28	26
Appropriate expression of feelings	6	19	17
Anxiety	7	11	10
Adjustment to change	8	9	8
3.6 students (N=68)			
Interpersonal relationships - peers	1	51	75
Self-esteem, self-concept	4	22	32
Social skills - general	3	25	37
Interpersonal relationships - adults	2	26	38
Responsibility, independence	6	17	25
Appropriate expression of feelings	5	19	28
Anxiety	7	11	16
Adjustment to change	8	3	4

Table 36

Frequency of Identified Academic Deficits Contributing to the Behavioral Disorder

Total sample (N=463)			
Academic deficits	Rank	Frequency	%
Math	1	137	30
Reading comprehension	1	137	30
Reading recognition	3	131	28
Written language	4	123	27
Social studies	5	6	1
Science	6	3	1
1.7 students (N=268)			
Math	1	79	29
Reading comprehension	1	79	29
Reading recognition	4	71	26
Written language	3	73	27
Social studies	5	2	1
Science	5	2	1

Table 36 (continued)

	Rank	Frequency	%
2.2 students (N=109)			
Math	3	34	31
Reading comprehension	2	35	32
Reading recognition	1	41	38
Written language	4	33	30
Social studies	5	1	1
Science	6	0	0
3.6 students (N=68)			
Math	1	23	34
Reading comprehension	3	22	32
Reading recognition	3	18	26
Written language	4	17	25
Social studies	5	2	3
Science	6	1	1

Table 37

Frequency of Identified Other Deficits Contributing to the Behavioral Disorder

Total sample (N=463)			
Other deficits	Rank	Frequency	%
Study skills	1	66	14
Family	2	64	14
Personal hygiene	3	53	11
Vocational/career	4	24	5
Survival skills	5	15	3
Computer science	6	0	0
1.7 students (N=268)			
Study skills	1	40	15
Family	1	40	15
Personal hygiene	3	27	10
Vocational/career	4	14	5
Survival skills	5	6	2
Computer science	6	0	0

Table 37 (continued)

Other deficits	Rank	Frequency	%
2.2 students (N=109)			
Study skills	1	19	17
Family	2	17	16
Personal hygiene	3	14	13
Vocational/career	5	2	2
Survival skills	4	4	4
Computer science	6	0	0
2.2 students (N=109)			
Study skills	4	5	7
Family	3	7	10
Personal hygiene	1	12	18
Vocational/career	2	8	12
Survival skills	4	5	7
Computer science	6	0	0

This portrayal or representation changes when students of different disability weights are considered. The transition from 1.7 to 3.6 students was characterized by a substantial decrease in academic behavior deficits and a substantial increase in aggressive behavior, disruptive attention seeking

behaviors, and compliance problems. The 1.7 student was much more likely to possess an academic behavior deficit than any other type of deficit while a 3.6 student was equally as likely to demonstrate deficits in aggressive, compliance, attention-seeking, or academic behaviors. Social and emotional differences are especially apparent in the interpersonal deficits identified for students with different disability weights. All students (1.7, 2.2 and 3.6) demonstrated interpersonal peer difficulties more frequently than any other difficulties, but the magnitude of occurrence was much higher for both the 2.2 and 3.6 students. Also, 3.6 BD students were more likely to demonstrate concurrent interpersonal deficits with adults than either 2.2 or 1.7 students. The identified deficits in core academic areas, across disability, were noteworthy for their equivalency. It seems the likelihood that a student might have had either a reading, math, or written language deficit was moderate in all disability weight classifications while deficits in social studies or science were rare, again regardless of the student's weight classification.

Quality of Evaluation

Additional analyses were performed to examine the quality of the comprehensive evaluations that had been completed as part of either the placement or mandatory re-evaluation of Iowa BD students. Quality was conceptualized (and operationally defined) in two ways. First, with respect to breadth and thoroughness of the evaluation or the frequency with which all three of the mandated evaluation components of setting analysis, pupil behavior data, and individual trait data were completed and explicitly

documented. Second, as a function of the estimated time spent completing the evaluation. These results are summarized in Tables 38 and 39.

Thoroughness of evaluation. All three areas (setting analysis, pupil behavior data, individual trait data) were assessed and explicitly documented for 71% of the total sample. Of the remaining portion of the students, 20% had two areas assessed and 9% had only one of the areas assessed and documented. The percentage of students with all three areas assessed and documented was also examined as a function of student weighting and program model. These comparisons present a somewhat mixed picture. In both cases the highest frequency of assessment thoroughness was observed for moderately impaired students (2.2, SCC) while the lowest frequency of assessment thoroughness was observed for the severely disordered students (3.6, SC).

Estimated time for evaluation. The analysis of the evaluation procedures as a function of the amount of time spent to complete them was performed in order to provide a basis for comparing the procedures used within each of the three broad areas of assessment discussed in the preceding paragraph. Estimates of time (in minutes) necessary to complete each evaluation procedure were assigned by the author based on his knowledge of the specific procedures. Some attempt was made to standardize the time estimates by assigning the same estimate to similar procedures. Even so, the fact that the assignments were made by only one individual does not allow a means to ascertain their validity as an accurate absolute estimate of the number of minutes necessary to complete each procedure. As a result, the results of this analyses should be viewed

Table 38

Thoroughness of Evaluation Data Collection

Weighting	Thoroughness by disability weighting							
	3 areas assessed		2 areas assessed		1 area assessed		Total	
	N	%	N	%	N	%	N	%
1.7	147	70	41	20	21	10	209	60
2.2	65	75	16	19	5	6	86	24
3.6	36	64	15	27	5	9	56	16
Total	248	71	72	20	31	9	351	100

Model	Thoroughness by program model							
RTP	97	74	25	19	9	7	131	39
SCIN	51	65	16	21	11	14	78	23
SCC	63	79	14	17	3	4	80	24
SC	30	64	12	25	5	11	47	14
Total	241	72	67	20	28	8	336	100

Note. Areas - setting analysis, pupil behavior data, individual trait data.

Table 39

Comparison of Evaluation Component Time Estimate by Type of Evaluation

Evaluation component	Type of evaluation								
	Initial (1)			Other com (2)			Three year (3)		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Testing time	133	158.4	51.1	114	143.0	61.0	192	156.4	50.2
Setting analysis time	133	94.7	67.9	114	81.3	63.8	192	81.2	63.9
Pupil behavior data time	133	152.0	97.2	114	147.1	105.5	192	119.8	93.3
Individual trait data time	133	66.1	49.5	114	57.4	59.4	192	53.6	49.8
Difference time ^b	133	154.5	176.1	114	142.8	174.9	192	98.2	162.5

^aNewman-Keuls.^bDifference time = (setting analysis time + pupil behavior data time + individual trait data time) - testing time.

<u>Total</u>			<u>Anova</u>		
N	Mean	SD	F	P	N - K ^a
439	153.5	53.7	(2,436)=3.06	.0480	3>2
439	85.4	65.2	(2,436)=1.98	.1390	---
439	136.7	98.7	(2,436)=5.14	.0062	1=2>3
439	58.4	52.5	(2,436)=2.26	.1051	---
439	126.9	171.5	(2,436)=4.98	.0072	1=2>3

primarily with respect to the comparisons they allow, not as real indications of the amount of time that was expended completing these evaluation procedures. The time factors assigned to each evaluation procedure are listed in Appendix B.

Comparisons were performed for five separate time estimate dependent variables. They were: testing time - a time estimate of standardized IQ and academic testing procedures; setting analysis time - a time estimate sum of all procedures included as a part of the setting analysis assessment; pupil behavior data time - a time estimate sum of all procedures included as a part of the pupil behavior data assessment; individualized trait data time - a time estimate sum of all procedures included as a part of the individual trait data assessment; and difference time - a time estimate that was the algebraic difference between testing time subtracted from the sum of setting analysis time, pupil behavior data time, and individualized trait data time. Comparisons of each of these variables by student weighting, program model, and type of evaluation were completed using analysis of variance procedures. Significant results were then further analyzed using post hoc Student Newman-Keuls multiple range tests to determine the direction of differences between means. With respect to comparisons by weight and program model, only one significant difference was apparent. Individual trait data time differed as a function of student weighting, $F(2,442) = 3.00, p = .0509$. Post hoc tests ($\alpha = .05$) indicated that significantly more time was expended for the individual trait data assessment for 3.6 students than for 1.7 students. When the assessment procedures were operationalized and compared on the basis of these time estimates, general differences were not apparent for students with different disorder severity levels. Because there are not standards against which these time estimates may be absolutely measured; it

is difficult to interpret these results. Intuitively one might expect that more severely disordered students require more extensive assessment procedures that would require additional time. However, it may also be true that all students were receiving very thorough and comprehensive evaluations irrespective of the severity of their disorder.

Differences did emerge when comparisons of these time estimates were made as a function of the type of evaluation (initial placement, other comprehensive, or three-year re-evaluation). These results are summarized in Table 39. More standardized IQ and achievement testing time was expended during three-year re-evaluations than during other comprehensive evaluations while more time was expended on pupil behavior data assessment during initial placement and other comprehensive evaluations than during three-year re-evaluations.

Individualized Education Program

On the portion of the questionnaire completed by teachers, the respondents were asked to provide information regarding the student's individualized education program (IEP). This section consisted of a list of preset categories and respondents simply marked those categories that were addressed by a written goal or objective in the student's IEP. The responses to these items were analyzed in isolation and with respect to their congruence to deficits identified through the evaluation process. The IEP data summary is listed in Tables 40-43.

The results indicate that for the entire sample, the most frequently listed IEP goal or objective was concerned with academic behavior (on-task, assignment completion) followed, in order of frequency, by written language, interpersonal relationships with peers, math, and compliance. A comparison was made between the frequencies of identified deficits and the frequencies of IEP goals for the entire sample. This comparison data is contained in Table 44. Two observations are apparent from this table. First, the magnitude of the frequencies for the various categories were generally larger for the IEP data than for the identified deficits data, suggesting that some IEP goals and objectives were written in the absence of a deficit identified in the evaluation. Second, the rank order of the two sets of data did not match. This indicates different emphasis was given to certain areas of treatment by those persons who wrote the IEP than by those persons who conducted the evaluation. A visual inspection of Table 44 seems to suggest that core academic goals were written into IEPs for BD students much more frequently than they were identified as deficits in the evaluation, and for many students core academics were made a part of the IEP as a matter of routine, since the evaluation did not indicate that an academic deficit existed.

Identified Deficit/IEP Congruence

In order to more carefully examine the question of congruence between the evaluative process and the IEP goals and objectives, information outlined in

Table 40

Frequency of Behavioral IEP Goals or Objectives for Iowa BD Students

Behavioral goal or objective	Total sample (N=463)		
	Rank	Frequency	%
Academic behavior	1	370	80
Compliance	2	239	52
Attention seeking behavior	7	163	35
Aggressive behavior	4	194	42
Impulse control	6	168	36
Inappropriate verbalizations	5	188	41
Accepting criticism/correction	3	210	45
Attendance in class	8	87	19
1.7 students (N=268)			
Academic behavior	1	212	79
Compliance	2	103	38
Attention seeking behavior	7	70	26
Impulse control	4	78	29
Inappropriate verbalizations	6	74	28
Accepting Criticism/Correction	5	76	28

Table 40 (continued)

	Rank	Frequency	%
2.2 students (N=109)			
Academic behavior	1	84	77
Compliance	2	74	68
Attention seeking behavior	7	53	49
Aggressive behavior	3	63	58
Impulse control	6	54	50
Inappropriate verbalizations	5	58	53
3.6 students (N=68)			
Academic behavior	1	58	85
Compliance	2	52	77
Attention seeking behavior	6	35	52
Aggressive behavior	3	46	68
Impulse behavior	7	33	49
Inappropriate verbalizations	3	46	68
Accepting criticism/correction	3	46	68
Attendance in class	8	23	34

Table 41

Frequency of Social/Emotional IEP Goals or Objectives for Iowa BD Students

Social/emotional goal or objective	Total sample (N=463)		
	Rank	Frequency	%
Interpersonal relationships - peers	1	259	56
Self-esteem, self-concept	6	172	37
Social skills, skill training	4	190	41
Interpersonal relationships - adults	3	205	44
Responsibility, independence	2	216	47
Appropriate expression of feelings	5	182	39
Anxiety	7	76	16
Adjustment to change	8	60	13
Total sample (N=463)			
Interpersonal relationships - peers	1	125	47
Self-esteem, self-concept	3	95	35
Social skills, skill training	6	85	32
Interpersonal relationships - adults	3	95	35
Responsibility, independence	2	118	44
Appropriate expression of feelings	5	91	34
Anxiety	7	34	13
Adjustment to change	8	33	12

Table 41 (continued)

	Rank	Frequency	%
2.2 students (N=109)			
Interpersonal relationships - peers	1	77	71
Self-esteem, self-concept	6	35	32
Social skills, skill training	3	55	51
Interpersonal relationships - adults	2	59	54
Responsibility, independence	3	55	51
Appropriate expression of feelings	5	50	46
Anxiety	7	23	21
Adjustment to change	8	11	10
3.6 students (N=68)			
Interpersonal relationships - peers	1	49	72
Self-esteem, self-concept	3	36	53
Social skills, skill training	3	36	53
Interpersonal relationships - adults	2	46	68
Responsibility, independence	6	33	49
Appropriate expression of feelings	5	34	50
Anxiety	7	18	27
Adjustment to change	8	14	21

Table 42

Frequency of Academic IEP Goals or Objectives for Iowa BD Students

Academic goal	Total sample (N=463)		
	Rank	Frequency	%
Math	2	248	54
Reading comprehension	3	231	50
Reading recognition	4	181	39
Written language	1	263	57
Social studies	5	120	26
Science	6	108	23
1.7 students (N=268)			
Math	2	117	44
Reading comprehension	3	112	42
Reading recognition	4	90	34
Written language	1	146	55
Social studies	5	46	17
Science	6	37	14

Table 42 (continued)

	Rank	Frequency	%
2.2 students (N=109)			
Math	1	68	62
Reading comprehension	1	68	62
Reading recognition	4	48	44
Written language	3	59	54
Social studies	5	32	2
Science	5	32	29
3.6 students (N=68)			
Math	1	52	77
Reading comprehension	3	44	65
Reading recognition	5	38	56
Written language	2	46	68
Social studies	4	39	57
Science	6	36	53

Table 43

Frequency of Other IEP Goals or Objectives for Iowa BD Students

Other goals or objectives	Total sample (N=463)		
	Rank	Frequency	%
Study skills	1	211	46
Family	5	45	10
Personal hygiene	4	57	12
Vocational/career	2	136	29
Survival skills	3	61	13
Computer science	6	11	2
1.7 students (N=268)			
Study skills	1	121	45
Family	5	16	5
Personal hygiene	4	17	6
Vocational/career	2	68	25
Survival skills	3	18	7
Computer science	6	2	1

Table 43 (continued)

	Rank	Frequency	%
2.2 students (N=109)			
Study skills	1	51	47
Family	5	8	7
Personal hygiene	3	15	14
Vocational/career	2	23	21
Survival skills	4	14	13
Computer science	6	2	2
3.6 students (N=68)			
Study skills	2	32	47
Family	5	20	29
Personal hygiene	4	23	34
Vocational/career	1	37	54
Survival skills	3	26	38
Computer science	6	7	10

Table 44

Summary and Comparison of the Five Most Frequently Listed Identified Deficits and the Five Most Frequently Listed IEP Goals or Objectives

	Total sample (N=463)		
	Rank	Frequency	%
Identified deficit			
Academic behavior	1	304	66
Interpersonal relationships - peers	2	280	60
Compliance	3	171	37
Attention-seeking	4	165	36
Self-esteem, self-concept	5	164	35
IEP goal or objective			
Academic behavior	1	370	80
Written language skills	2	263	57
Interpersonal relationships - peers	3	259	56
Math skills	4	248	54
Compliance	5	239	52

the previous section was analyzed and examined on an individual student basis. Each questionnaire was analyzed to determine the extent to which agreement between identified deficits and IEP goals existed. Specifically, the frequency with which IEP goals were present for corresponding deficits and the degree to which deficits were identified when IEP goals had been written was calculated. The coding process, described on page 85, was an integral part of this procedure and the interrater reliability coefficients listed there should be noted by the reader as also affecting the results on congruence. To the extent that this coding procedure was not perfectly reliable, the congruence data are also unreliable. However, the coefficients are at a level that is generally considered high enough for valid interpretation.

A summary of the congruence data is contained in Tables 45 and 46. Each table represents analysis of the data from a different direction. In the first table the data represent the percentage of agreement using identified deficits as the standard. The percentages may be conceptualized as answering the following question: When deficits were identified, how often were corresponding IEP goals present? The data in the second table represent the percentage of agreement using IEP goals as the standard. These percentages may be thought of as answering the following question: When goals were written, how often had corresponding deficits been identified?

The percentages indicate that in both cases, overall agreement was fairly low. The agreement figures were slightly higher when the identified deficits were used as a starting point, suggesting that it is common for goals to be written and put into an IEP in addition to those written in response to identified deficits. The agreement percentages were easily lowest in the "other" category, which is

not surprising. The areas of functioning included in this category are peripheral to the student's disorder and it is not surprising that these "other" deficits identified in evaluations were often not included in IEP goals. The areas of behavior, social/emotional, and academic functioning, however, are central to the student's behavioral disorder and their school functioning. One would expect a reasonably high level of agreement within these areas of functioning. A perusal of Tables 45 and 46 indicates that this was not the case.

Table 45

When Deficits Were Identified, How Often Were Corresponding IEP Goals or Objectives Present?

Category	Mean % of agreement	S.D.	Max.	Min.
Behavior	63.8	35.8	100	0
Social/emotional	51.9	40.5	100	0
Academic	61.1	42.2	100	0
Other	28.1	42.7	100	0
<hr/>				
Total	51.2 ^a	40.3	100	0

^a58.9% excluding "other" category.

Table 46

When Goals Were Written, How Often Had Corresponding Deficits Been Identified?

Category	Mean % of agreement	S.D.	Max.	Min.
Behavior	47.4	29.8	100	0
Social/emotional	39.6	30.5	100	0
Academic	56.1	33.9	100	0
Other	31.0	38.3	100	0
Total	43.5 ^a	33.1	100	0

^a47.7% excluding "other" category.

Curriculum and Intervention

Teachers were asked to respond to a series of items inquiring about the existence of a district-wide philosophy for their BD programs and also about the existence and nature of general treatment components in their classrooms. This portion of the data was analyzed by teacher rather than by student. Each teacher who participated in the study was assigned an identification number. The data were then sorted by teacher and one case selected for each teacher in the sample. The analysis of classroom and school district data thus retained its independence.

Philosophy

A summary of the information regarding program philosophy is contained in Table 47. The largest proportions of teachers indicated that their school district either did not have a district-wide philosophy for the BD program (36%) or that they were not sure about the existence of a district-wide BD program philosophy for their district (38%). The remaining 26% of the teachers indicated that their district had a uniform BD program philosophy. A similar percentage (25%) of the total sample indicated that they had a philosophy in written form. A very clear trend was evident when the frequency of program philosophy was separated by program model. The percentage of programs with a district-wide philosophy and the percentage with a written philosophy increased as program models became more restrictive.

General Classroom Components

General classroom management. Seventy-four percent of the teachers reported that their program included a general classroom management component. Of those programs that had a general classroom management component, the most frequently listed type was one that was either described specifically as a token economy (31%) or described with various other contingency management and behavior-modification techniques (30%). Other types of general classroom management components that were listed included the Boys Town Model (15%), Assertive Discipline (7%), and various combinations of components that included cognitive (mediation essays, self-talk) and behavioral (modeling, direct instruction with reinforcement)

Table 47

Program Philosophy

Program	Does your program have <u>a district-wide philosophy?</u>				Is philosophy in <u>written form?</u>			
	model	N	% yes	% no	% unsure	N	% yes	% no
RTP	114	13	43	44	108	13	42	45
SCIN	70	20	37	43	64	17	31	52
SCC	60	32	36	32	53	36	30	34
SC	40	63	20	17	37	51	22	27
Total	306 ^a	26	36	38	283 ^a	25	33	42

^aThese totals include responses from program models other than RTP, SCIN, SCC, and SC that occurred too infrequently to be analyzed separately.

techniques (5%). The remaining techniques (12%) were either missing, unspecified or too vaguely described to classify.

Individual student management. Seventy-seven percent of the teachers reported that their program included an individual student management component. Of those programs that included an individual student management component, the most frequently listed type was one that was described as a token economy/point system (21%). Other individual student management components were described as charts/assignment sheets (15%),

individualized goals and expectations (14%), contracts (3%), and video feedback (1%). The remaining 22% were either missing, unspecified or vaguely described.

Social skills instruction. Sixty-three percent of the teachers reported that their program included a social skills instruction component. Of those programs that included a social skills instruction component, the most frequently listed type was one that was taught as part of an instructional class (22%). Other social skills instruction components were described as general group counseling (14%), Boys Town Model (14%), published programs such as Skillstreaming, ASSET, SISS, CAST (14%), informally provided by the teacher (10%) and provided through individualized counseling (6%). The remaining 20% were missing, not specified, or vaguely identified and difficult to classify.

Individual counseling. Fifty-eight percent of the teachers reported that their program included an individual counseling component. Of those programs that included an individual counseling component, the most frequently listed types were those described as being provided by the school counselor (21%) or school social worker (20%). Other individual counseling components were described as either informal with the teacher (12%), provided by various AEA support staff (6%), or provided by the school psychologist (5%). Many of the teachers who responded to this item affirmatively failed to provide a description of the type of counseling. Thus, 36% of the descriptions were missing, unspecified, or vaguely described.

Crises intervention. Forty-seven percent of the teachers reported that their program included a crisis intervention component. Of those programs that included a crisis intervention component, the most frequently described crisis intervention plans were ones where single personnel functioned as the

crisis intervention person. These persons included the principal (13%), school counselor (13%), teacher (4%), or crisis intervention specialist (2%). Other types of crisis intervention used were described as the Boys Town Model (10%), informal methods (11%), AEA support staff personnel (9%), a crisis intervention team (7%), and a crisis room (3%). Again, many of the descriptions (28%) were either missing, unspecified, or vague.

Classroom Components by Program Model

The proportions of teachers who indicated that their program included either general classroom management, individual student management, social skills instruction, individual counseling, or crisis intervention components differed as a function of program model. These differences are summarized in Table 48. For each type of component the trend was for increased inclusion of the component as program model restrictiveness increased. With the exception of the individual counseling component, these increasing trends were all statistically significant. These trends suggest that as students' disorders became more serious the programs that were treating them become more systematic and comprehensive in their treatment approach. This increasing trend was not, however, uniform for each of these components. It is especially apparent that the range of proportions between program models was much more restricted for the individual student management and individual counseling components. Thus, the differences between program models with respect to the frequencies with which they included these components was less for the individual counseling and individual student management components. In the case of the individual counseling component the restricted range had a moderate absolute

Table 56

Difference in Use of Intervention Strategies Between Students Enrolled in Different Program Models

Intervention strategy	<u>RTP</u>		<u>SCIN</u>		<u>SCC</u>	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Individual counseling	2.2	1.2	2.3	1.2	2.3	1.3
Group counseling	0.9	1.1	1.7	1.5	1.9	1.5
Life space interviewing	0.4	0.8	1.0	1.3	1.0	1.2
Crisis management	0.8	1.1	1.7	1.3	2.2	1.4
Peer tutoring	0.9	1.1	1.3	1.1	1.5	1.1
Peer counseling	0.5	0.9	0.9	1.0	1.0	1.2
Generalization training	1.1	1.2	1.6	1.3	1.9	1.1
Aversive consequences	1.3	1.3	1.7	1.2	2.1	1.1
Suspension/expulsion	0.6	1.0	1.2	1.2	1.2	1.2
Positive reinforcement	3.4	0.8	3.3	0.9	3.8	0.5
Modeling	2.2	1.3	2.6	1.1	2.9	1.1
Physical restraint	0.2	0.5	0.3	0.7	0.5	0.8
Social skills training	1.5	1.3	2.6	1.2	3.1	1.2
Self control strategies	1.4	1.2	2.3	1.2	2.9	1.1
Time out/quiet room	0.6	1.0	1.7	1.3	1.6	1.3
Token economy	0.9	1.4	1.5	1.6	2.8	1.6

Note: Range: 0 = not used to 4 = used frequently.

^aNewman-Keuls.

Most frequently specified component method

RTP	General behavior modification	Token economy	Taught as class	School counselor	Not specified
SCIN	General behavior modification	Token economy	Taught as class	School counselor	School counselor
SCC	Token economy	Token economy	Taught as class	Social worker	Principal
SC	Token economy	Token economy Contracts	Taught as class	Social worker School counselor	School Counselor

magnitude and reflected a relatively low level of this component in more restrictive program models (SCC, SC). In the case of the individual student management component, the restricted range has a high absolute magnitude and reflected a relatively high level of this component in less restrictive models (RTP, SCIN).

Curriculum Emphasis

This portion of the questionnaire asked teachers to rate the degree to which various curriculum areas were emphasized as part of the classroom programming for each student in the sample. Each curriculum area was rated from zero (no emphasis) to four (strong emphasis) for each student. Mean ratings for the entire sample are contained in Table 49. These ratings indicated that the curriculum areas most emphasized were behavioral, academic, social skills, and emotional in descending order. These ratings, across all types of students, identified areas of curriculum emphasis that were expected. However, the rank order of the four most highly rated areas is noteworthy since it reflects a very strong academic emphasis for the students in this sample and a considerably lower emphasis on emotional programming. This difference may have been due, in part, to the mildly disordered nature of this sample of students. Other intervening factors were also present and their impact on curriculum emphasis is described in the following sections. In each case a one-way analysis of variance procedure was performed with a post hoc Student Newman-Keuls multiple-range test also included for cases where the independent variable contained more than two levels. All of the multiple range tests were performed with $\alpha = .05$.

Table 49

Curriculum Emphasis for Behaviorally Disordered Students

Curriculum area	N	Mean	S.D.	Min	Max
Emotional	431	2.6	1.1	0	4
Behavioral	438	3.4	0.9	0	4
Academic	437	3.3	0.7	1	4
Vocational	431	1.6	1.3	0	4
Motor	425	0.9	1.0	0	4
Self-Help	430	1.8	1.3	0	4
Communication/ language	432	2.1	1.3	0	4
Recreation/leisure	427	1.3	1.1	0	4
Survival skills	430	1.8	1.3	0	4
Social skills	434	2.9	1.1	0	4

Note. Range: 0 = No emphasis to 4 = strong emphasis.

Student sex and race. Only one statistically significant difference in curriculum emphasis appeared as a function of student sex and no significant differences were evident as a function of student race. Behavioral curriculum was more highly emphasized with males than females, $F(1,405) = 11.71$, $p = .0007$.

Program status. The curriculum emphasis for students in full-time programs was compared to that of students enrolled in part-time BD programs. A summary of these comparisons is contained in Table 50. More emphasis was reported for students in full-time programs in 5 of the 10 curriculum areas (emotional, communication/language, recreation/leisure, survival skills, social skills).

Table 50

Curriculum Emphasis Differences Between Full-Time and Part-Time BD Programs

Curriculum area	N	Full-time		N	Part-time		ANOVA	
		Mean	S.D.		Mean	S.D.	F	P
Emotional	369	2.7	1.1	38	2.0	1.0	13.2	.0003
Behavioral	376	3.4	0.9	38	3.1	0.9	3.6	.06
Academic	375	3.3	0.7	38	3.4	0.6	1.5	.22
Vocational	371	1.6	1.3	37	1.2	1.2	2.7	.10
Motor	366	0.9	1.0	36	0.9	1.1	0.1	.95
Self-help	368	1.9	1.3	38	1.5	1.3	2.3	.13
Communication/ language	371	2.1	1.3	37	1.5	1.2	7.4	.007
Recreation/leisure	367	1.3	1.1	37	0.6	0.8	18.1	.0000
Survival skills	369	1.9	1.3	38	1.2	1.3	11.7	.0007
Social skills	373	2.9	1.1	37	2.2	1.3	14.1	.0002

Note: Range: 0 = no emphasis to 4 - strong emphasis.

Disability weight. The curriculum emphasis for students with different disability weightings was compared. Table 51 contains a listing of the mean ratings for each of the curriculum areas by level of disability weight and the ANOVA results that tested for statistically significant differences between ratings for each of the different disability weight levels. The analysis contained in Table 51 indicated that statistically significant differences between students with different disability weights were evident for all 10 of the curriculum areas. This result makes intuitive sense as it was expected that 1.7 BD students received different curriculum emphases than 3.6 students. More interesting and informative were the results of the post hoc multiple range tests that delineated the nature and direction of the differences detected by the ANOVA. With only one exception, the reported curricular emphases reflected less emphasis for 1.7 students. The exception, as might be expected, was in the area of academic emphasis where 1.7 students received more emphasis. Differences in curriculum emphasis between the other disability levels were not as clearly demonstrated and in many cases differences between 2.2 and 3.6 students were nonexistent. There was a clear delineation between all three disability levels in the amount of emphasis placed on motor functioning with students. Vocational curriculum emphasis was the only area where 2.2 and 3.6 students were differentiated.

Program model. Further investigation of differences in curriculum emphasis was accomplished by analyzing the differences in the ratings for different program models. The analysis procedure was again an ANOVA with post hoc Student Newman-Keuls multiple-range tests. These results are summarized in Table 52. Statistically significant differences between program

Table 51

Curriculum Emphasis Differences Between Students with Different Disability Weights

Curriculum	<u>1.7</u>		<u>2.2</u>		<u>3.6</u>		<u>ANOVA</u>		<u>N-K^a</u>
area	Mean	S.D.	Mean	S.D.	Mean	S.D.	F	P	Direction
Emotional	2.4	1.1	2.9	1.0	2.9	1.0	13.5	.0000	1.7<3.6=2.2
Behavioral	3.1	1.0	3.8	0.4	3.8	0.6	39.8	.0000	1.7<3.6=2.2
Academic	3.4	0.7	3.3	0.7	3.1	0.7	3.2	.04	3.6<1.7
Vocational	1.5	1.3	1.5	1.2	2.0	1.3	5.0	.007	1.7=2.2<3.6
Motor	0.6	0.9	1.0	1.0	1.5	1.0	25.5	.0000	1.7<2.2<3.6
Self-help	1.6	1.4	2.1	1.2	2.2	1.2	8.2	.0003	1.7<2.2=3.6
Comm./lang.	1.9	1.3	2.2	1.2	2.5	1.2	6.6	.002	1.7<2.2=3.6
Rec./leisure	0.9	1.0	1.7	1.0	1.9	0.9	36.3	.0000	1.7<2.2=3.6
Survival skills	1.6	1.3	2.0	1.1	2.3	1.1	11.3	.0000	1.7<2.2=3.6
Social skills	2.6	1.2	3.4	0.8	3.3	0.8	30.3	.0000	1.7<3.6=2.2

Range: 0 = no emphasis to 4 = strong emphasis.

^aNewman-Keuls.

models were obtained for all ten areas of curriculum emphasis. The nature of the differences, as expected, were similar to those described earlier in the section on disability weight, but the breakdown by program model provides additional information. With only one exception (academic) the emphasis placed on the

Table 52

Curriculum Emphasis Differences Between Students Enrolled in Difference Program Models

Curriculum area	RTP		SCIN		SCC		SC		ANOVA		N-K ^a
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	F	P	Direction
Emotional	2.2	1.1	2.6	1.0	3.0	0.9	2.9	1.0	14.7	.0000	RTP<SCIN<SCC=SC
Behavioral	2.8	1.0	3.4	0.8	3.8	0.4	3.8	0.6	40.6	.0000	RTP<SCIN<SCC=SC
Academic	3.4	0.7	3.4	0.7	3.3	0.8	3.1	0.7	3.8	.01	SC<SCIN=RTP
Vocational	1.2	1.2	2.0	1.4	1.5	1.2	1.9	1.3	10.2	.0000	RTP<SCC, SC, SCIN, SCC<SCIN
Motor	0.5	0.8	0.8	1.0	1.1	1.0	1.4	1.0	13.5	.0000	RTP <SCIN<SCC=SC
Self-help	1.5	1.3	1.9	1.4	2.1	1.1	2.2	1.2	5.9	.0006	RTP<SCIN=SCC=SC
Comm./lang.	1.8	1.3	2.2	1.3	2.2	1.2	2.6	1.2	5.6	.0009	RTP<SCIN=SCC=SC
Rec./leisure	0.7	0.9	1.4	1.0	1.8	1.1	1.9	0.9	33.5	.0000	RTP<SCIN<SCC=SC
Survival skills	1.3	1.3	2.2	1.2	2.1	1.1	2.3	1.1	17.7	.0000	RTP<SCIN=SCC=SC
Social skills	2.2	1.3	3.1	1.0	3.4	0.8	3.4	0.7	36.9	.0000	RTP<SCIN<SC=SCC

Note. Range: 0 = no emphasis to 4 = strong emphasis.

^aNewman-Keuls.

various curriculum areas was clearly lower for RTP students than for students in any of the other program models. In the area of academic curriculum the direction of the difference was reversed with RTP students receiving more curriculum emphasis. Differences in curriculum emphases between the other program models were not as clearly delineated and were often not apparent. The blurring of curriculum emphasis occurred most frequently between the SCC and SC models as those two were not differentiated in any of the curriculum areas. Differences between SCIN and RTP models were very frequent (9 of 10 areas) and differences between SCIN and SCC, SC were mixed, occurring in five out of 10 areas.

Intervention Strategies

Further investigations of differences in programming were obtained by asking teachers to rate the frequency with which various types of intervention strategies were used with the student on which data were collected. These data were analyzed in the same fashion as those on curriculum emphasis. This information on intervention strategies should permit a view of programming differences from a slightly different perspective. Each type of intervention strategy was rated on a scale of zero (not used) to four (used frequently) for each student. Mean ratings for the entire sample are contained in Table 53. Clearly the most frequently employed intervention was positive reinforcement followed by modeling, social skills training, individual counseling, and self-control strategies. These five most frequently used intervention strategies represent a mix of psychological approaches including traditional behavior

Table 53

Use of Intervention Strategies with Behaviorally Disordered Students

Intervention strategy	N	Mean	S.D.	Min	Max
Individual counseling	435	2.3	1.2	0	4
Group counseling	434	1.5	1.4	0	4
Life space interviewing	409	0.8	1.1	0	4
Crisis management	431	1.6	1.4	0	4
Peer tutoring	433	1.2	1.2	0	4
Peer counseling	432	0.8	1.0	0	4
Generalization training	428	1.5	1.3	0	4
Aversive consequences	430	1.7	1.3	0	4
Suspension/expulsion	433	1.0	1.2	0	4
Positive reinforcement	438	3.5	0.7	0	4
Modeling	434	2.6	1.2	0	4
Physical restraint	432	0.4	0.8	0	4
Social skills training	433	2.4	1.4	0	4
Self control strategies	435	2.2	1.3	0	4
Time out/quiet room	435	1.3	1.3	0	4
Token economy	432	1.8	1.7	0	4

Note. Range: 0 = not used to 4 = used frequently.

modification (positive reinforcement, modeling), cognitive (self-control strategies/individual counseling), emotional/supportive (individual counseling), and psychoeducational (social skills training). Those strategies that received the lowest ratings were physical restraint, peer counseling, life space interviewing, and suspension/expulsion. Low ratings for these areas were probably predictable and in some cases (physical restraint, suspension/expulsion) encouraging while in other cases (life space interviewing, peer counseling) disappointing. Differences in the use of these intervention strategies were examined as a function of a number of variables.

Student sex and race. A number of differences in the use of intervention strategies appeared between males and females in the sample. These difference are listed in Table 54. There were no differences in intervention strategies used with students of different racial groups. Statistically significant differences between males and females appeared for the strategies of individual counseling, group counseling, aversive consequences, physical restraint, and time out/quiet room. In all cases where differences appeared, the direction of the difference indicated that the interventions were more frequently used with male BD students than they were with female students.

Disability weight. The comparisons of the use of intervention strategies with students of different disability weights are contained in Table 55. Statistically significant differences appeared between the disability weights for all but one intervention strategy. The strategy for which no differences appeared was individual counseling. For the strategies where differences did appear, the trend was far less frequent use of all strategies with 1.7 students. Thirteen out of fifteen interventions reported were used with 1.7 students less frequently than

Table 54

Differences in Use of Intervention Strategies with Male and Female BD Students

Intervention strategy	<u>Male</u>		<u>Female</u>		<u>ANOVA</u>	
	Mean	S.D.	Mean	S.D.	F	P
Individual counseling	2.3	1.2	1.9	1.1	(1,402) = 7.01	.0084
Group counseling	1.5	1.4	1.0	1.4	(1,401) = 8.71	.0033
Life space interviewing	0.8	1.1	0.7	1.0	(1,382) = 0.55	.4595
Crisis management	1.7	1.4	1.3	1.3	(1,398) = 3.05	.0815
Peer tutoring	1.2	1.1	1.3	1.3	(1,400) = 1.23	.2681
Peer counseling	0.8	1.0	0.7	1.1	(1,399) = 0.39	.5319
Generalization training	1.5	1.2	1.6	1.3	(1,395) = 0.42	.5160
Aversive consequences	1.7	1.2	1.3	1.3	(1,399) = 5.94	.0152
Suspension/expulsion	1.1	1.2	0.8	1.2	(1,400) = 2.50	.1145
Positive reinforcement	3.5	0.7	3.6	0.8	(1,405) = .024	.6259
Modeling	2.5	1.2	2.6	1.3	(1,401) = .051	.4742
Physical restraint	0.4	0.8	0.2	0.7	(1,400) = 5.07	.0248
Social skills training	2.4	1.4	2.4	1.3	(1,400) = 0.08	.7773
Self-control strategies	2.3	1.3	1.9	1.3	(1,402) = 3.81	.0518
Time out/quiet room	1.4	1.3	0.9	1.2	(1,402) = 6.86	.0092
Token economy	1.8	1.7	1.5	1.8	(1,399) = 1.75	.1866

Note. Range: 0 = not used to 4 = used frequently.

Table 55

Differences in Use of Intervention Strategies Between Student with Different Disability Weights

Intervention	<u>1.7</u>		<u>2.2</u>		<u>3.6</u>		<u>ANOVA</u>		<u>N-K</u>
strategy	Mean	S.D.	Mean	S.D.	Mean	S.D.	F	P	Direction
Individual counseling	2.2	1.2	2.2	1.3	2.4	1.3	0.3	.74	---
Group coun.	1.1	1.3	2.0	1.4	1.8	1.3	18.7	.0000	1.7<3.6=2.2
Life space interview	0.6	1.0	1.0	1.2	1.2	1.3	10.1	.0001	1.7<2.2=3.6
Crisis mgmt.	1.2	1.3	2.3	1.4	2.4	1.3	39.2	.0000	1.7<2.2=3.6
Peer tutoring	1.0	1.2	1.5	1.1	1.2	1.1	6.2	.002	1.7=3.6<2.2
Peer counseling	0.6	1.0	1.0	1.2	0.9	1.0	4.2	.015	1.7=3.6<2.2
Generalization training	1.2	1.3	1.9	1.1	1.9	1.2	17.0	.0000	1.7<3.6=2.2
Aversive consequences	1.5	1.3	2.1	1.2	1.9	1.2	10.3	.0000	1.7<3.6=2.2
Suspension/expulsion	0.8	1.1	1.2	1.2	1.5	1.1	11.1	.0000	1.7<2.2=3.6
Positive rein.	3.4	0.8	3.8	0.5	3.7	0.6	12.5	.0000	1.7<3.6=2.2
Modeling	2.4	1.2	2.9	1.1	2.8	0.9	8.6	.0002	1.7<3.6=2.2

Note: Range: 0 = not used to 4 = used frequently.

Table 55 (continued)

Intervention strategy	<u>1.7</u>		<u>2.2</u>		<u>3.6</u>		<u>ANOVA</u>		<u>N-K</u>
	Mean	S.D.	Mean	S.D.	Mean	S.D.	F	P	Direction
Physical restraint	0.2	0.6	0.6	0.8	0.8	1.0	19.6	.0000	1.7<2.2<3.6
Social skills trng.	1.9	1.4	3.1	1.2	2.9	0.9	35.3	.0000	1.7<3.6=2.2
Self-control strat.	1.7	1.3	3.0	1.0	2.7	1.0	46.2	.0000	1.7<3.6=2.2
Time out/ quiet room	1.0	1.2	1.6	1.3	1.9	1.2	19.1	.0000	1.7<2.2=3.6
Token economy	1.3	1.6	2.6	1.6	2.3	1.7	30.1	.0000	1.7<3.6=2.2

with either 2.2 or 3.6 students. Two strategies (peer tutoring, peer counseling) were reported as being at equivalent levels of use for 1.7 and 3.6 students, which were each lower than for 2.2 students.

The differences between 2.2 and 3.6 students were again not clearly delineated and often nonexistent. In only one case (physical restraint) did a clear distinction emerge between each of the three disability levels. For twelve of the intervention strategies rated, no differences were reported between the frequency with which interventions were used with 2.2 vs. 3.6 students.

Program model. Additional investigations of differences in the use of intervention strategies was accomplished by analyzing the differences in these ratings for different program models. The analysis procedure was again an

Table 56

Difference in Use of Intervention Strategies Between Students Enrolled in Different Program Models

Intervention strategy	<u>RTP</u>		<u>SCIN</u>		<u>SCC</u>	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Individual counseling	2.2	1.2	2.3	1.2	2.3	1.3
Group counseling	0.9	1.1	1.7	1.5	1.9	1.5
Life space interviewing	0.4	0.8	1.0	1.3	1.0	1.2
Crisis management	0.8	1.1	1.7	1.3	2.2	1.4
Peer tutoring	0.9	1.1	1.3	1.1	1.5	1.1
Peer counseling	0.5	0.9	0.9	1.0	1.0	1.2
Generalization training	1.1	1.2	1.6	1.3	1.9	1.1
Aversive consequences	1.3	1.3	1.7	1.2	2.1	1.1
Suspension/expulsion	0.6	1.0	1.2	1.2	1.2	1.2
Positive reinforcement	3.4	0.8	3.3	0.9	3.8	0.5
Modeling	2.2	1.3	2.6	1.1	2.9	1.1
Physical restraint	0.2	0.5	0.3	0.7	0.5	0.8
Social skills training	1.5	1.3	2.6	1.2	3.1	1.2
Self control strategies	1.4	1.2	2.3	1.2	2.9	1.1
Time out/quiet room	0.6	1.0	1.7	1.3	1.6	1.3
Token economy	0.9	1.4	1.5	1.6	2.8	1.6

Note: Range: 0 = not used to 4 = used frequently.

^aNewman-Keuls.

<u>Total</u>		<u>ANOVA</u>		<u>aN-K</u>
Mean	S.D.	F	P	Direction
2.4	1.3	0.4	.78	--
1.9	1.3	17.6	.0000	RTP<SCIN=SCC=SC
1.4	1.3	13.0	.0000	RTP<SCC,SCIN,SC,SCIN<SC
2.6	1.3	38.0	.0000	RTP<SCIN<SCC=SC
1.3	1.2	5.9	.006	RTP<SCIN=SCC
1.1	1.1	7.4	.0001	RTP<SCIN=SCC=SC
2.1	1.2	13.8	.0000	RTP<SCIN,SCC,SC,CIN<SC
1.9	1.3	9.0	.0000	RTP<SCIN=SCC=SC
1.5	1.1	12.3	.0000	RTP<SCIN=SCC=SC
3.7	0.6	9.7	.0000	SCIN=RTP<SC=SCC
2.9	0.9	9.0	.0000	RTP<SCIN=SCC=SC
0.9	1.0	14.6	.0000	RTP=SCIN<SCC<SC
2.9	0.9	44.2	.0000	RTP<SCIN,SCC,SC,SCIN<SCC
2.7	0.9	40.5	.0000	RTP<SCIN<SC=SCC
2.0	1.2	31.2	.0000	RTP<SCC=SCIN=SC
2.7	1.6	38.7	.0000	RTP<SCIN<SC=SCC

ANOVA with post hoc Student Newman-Keuls multiple-range tests. These results are summarized in Table 56. Statistically significant differences between program models were obtained for all but one of the intervention strategies. The direction of these differences again clearly indicated lower frequency for all interventions with RTP students. In most cases the RTP students were significantly different from SCIN, SCC, and SC with the exception of positive reinforcement and physical restraint interventions where RTP and SCIN students were equivalent.

The most striking results from the analyses are, again, the general lack of differentiation between SCIN, SCC and SC program models. Five intervention differences appeared between SCIN and SCC, SC (token economy, time out/quiet room, physical restraint, positive reinforcement, crisis management) while only one intervention (physical restraint) differed between SCC and SC program models.

Multivariate Analysis of Curriculum Emphasis and Intervention Strategies

In addition to the previously described univariate analyses of the difference between curriculum emphasis and intervention strategy as a function of student weighting and program model, multivariate analyses were also conducted. The multivariate technique of discriminant analysis was used, (1) in an effort to determine which of these curriculum and intervention variables best characterize the differences between the groups of students in this study, and (2) to help describe the dimensionality of group differences. Specifically, the multivariate contribution of ten curriculum variables to the classification of

students by severity weighting, program model, and diagnostic cluster was explored as was the multivariate contribution of sixteen intervention variables to the same classification groups.

Curriculum discriminant functions. Three separate discriminant function analyses were performed using the ten continuous variable ratings of curriculum emphasis as predictor variables. The first analysis explored the contribution of these ten curriculum variables to student severity classification (1.7, 2.2, 3.6), the second analysis explored the contribution of these ten curriculum variables to student program model classification (RTP, SCIN, SCC, SC), and the third analysis explored the contribution of these ten curriculum variables to student diagnostic cluster classification (I-disruptive, impulsive; II - withdrawn, anxious; III - disordered thought process; IV - autism). Each of these analyses yielded two significant functions separating the respective groups in multivariate space defined by the ten curriculum predictor variables. The statistical specifications of the discriminant functions are contained in Table 57. The presence of two significant functions for each of the classification types indicates that the null hypothesis of equality of group means can be rejected with respect to two separate dimensions, or discriminants. These two-function solutions presented classification group means that were clearly separated from each other in two-dimensional multivariate space. Group centroid values and graphic illustrations of the classification group separations are contained in Figures 1, 2, and 3. A visual inspection of Figures 1 and 2, along with their group centroid values indicates, however, that the statistically significant overall differences between the group centroids does not represent equal differences between the groups. Figure 1 illustrates that the 1.7 group is more

Table 57

Discriminant Functions Using Curriculum Emphasis Variables

Classification group	Function	Eigen value	Percent of variance	Canonical correlation	Wilk's lambda	Chi-squared	D.F.	Significance
Student severity weighting	I	.37	87.3	.52	.69	143.7	20	.0000
	II	.05	12.7	.23	.95	20.6	9	.0145
Student program model	I	.64	85.8	.62	.55	219.2	30	.0000
	II	.07	9.4	.26	.90	37.7	18	.0043
Student diagnostic cluster	I	.36	61.7	.51	.60	79.6	30	.0000
	II	.17	29.0	.38	.81	32.2	18	.0207

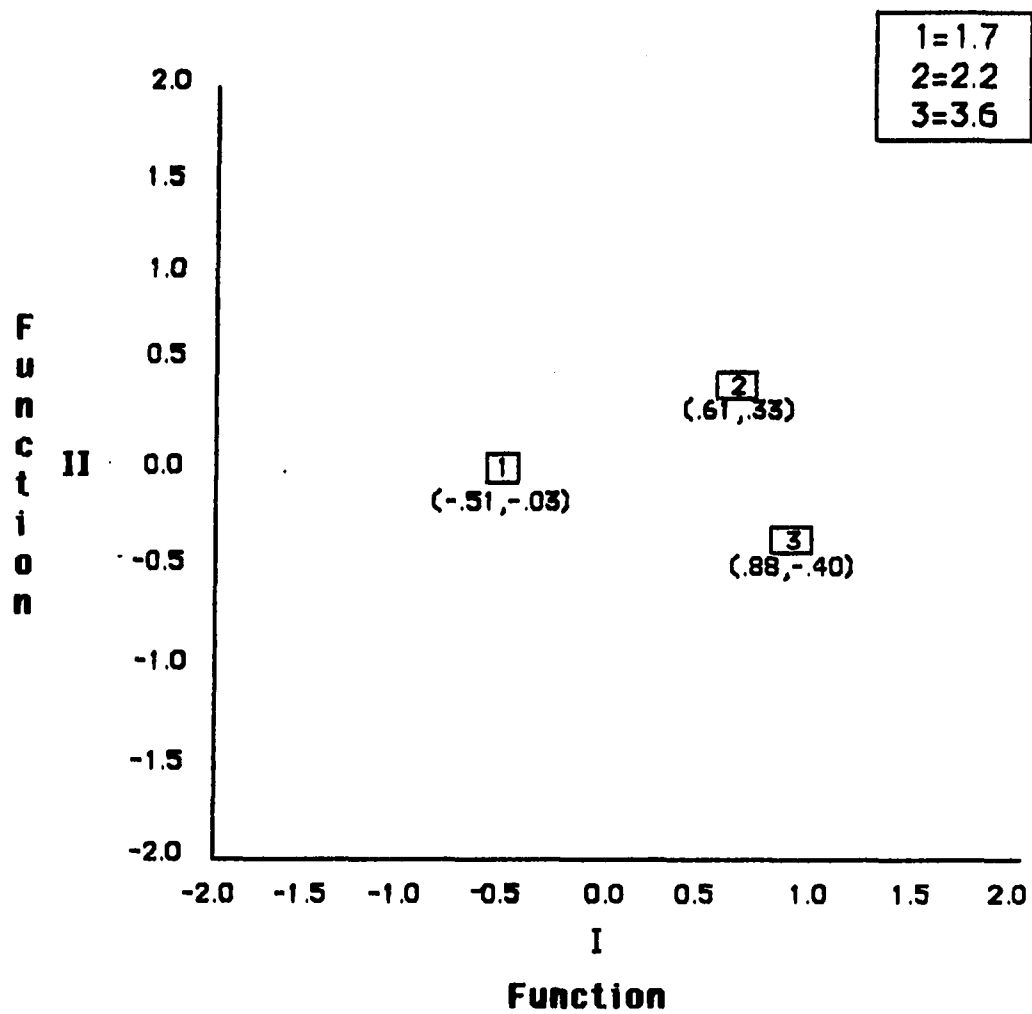


Figure 1. Separation of group centroids of three BD student weighting groups in multivariate space defined by ten curriculum emphasis variables.

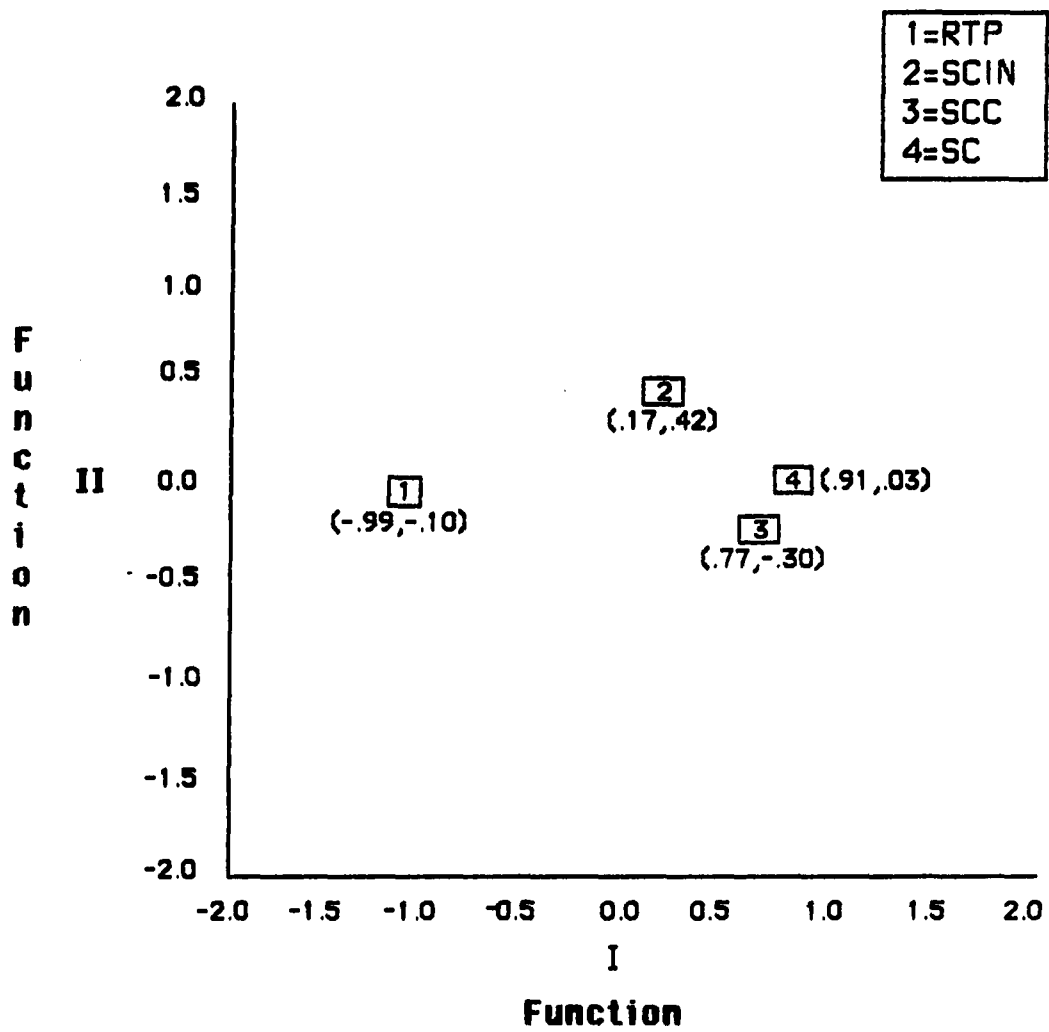


Figure 2. Separation of group centroids of four BD program model groups in multivariate space defined by ten curriculum emphasis variables.

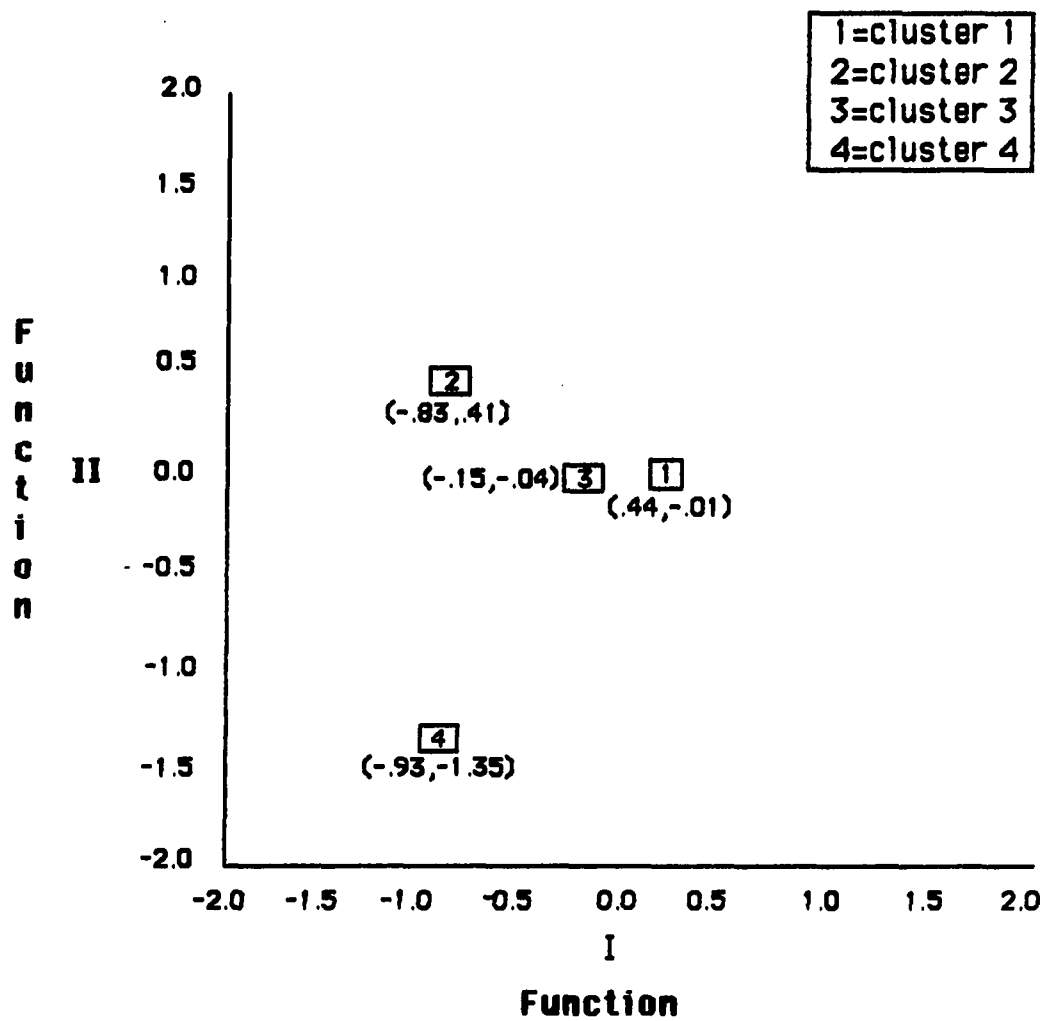


Figure 3. Separation of group centroids of four diagnostic cluster groups in multivariate space defined by ten curriculum emphasis variables.

clearly separated by the first function than are either of the other two groups while all three groups are separated by less than one standard deviation by the second function. Similarly, the discriminant functions separating students in different program models show a clear separation of the RTP and SCIN groups by the first function with relatively little separation of the SCC and SC groups. On the second function all groups were separated by less than one standard deviation.

The discriminant functions separating students in different diagnostic groups indicated that clearer differences appeared for these groups on the curriculum variables. Both functions resulted in overall separations of more than one standard deviation. Function 1 seemed to clearly distinguish the disruptive, aggressive students from both the anxious, withdrawn and the autistic students while somewhat separating the students with disordered thought processes from all the rest. Function 2 provided a clear separation of the autistic students from those students in each of the other diagnostic clusters.

Two alternative indicators of the relative contributions of the discriminant predictors are standardized discriminant weights and correlations of the predictors with the discriminant variate. These two sets of indicators are presented in Table 58 for the student weighting group functions, in Table 59 for the program model group functions, and in Table 60 for the diagnostic clusters group functions. Based on the standardized discriminant function coefficients, the most discriminating variables for the student weighting groups were as follows: function 1 - behavioral (.57), recreation/leisure (.41) and motor (.38); function 2 - motor (-.60), vocational (-.53), social skills (.52), and academic (.44).

Table 58

Standardized Discriminant Function Coefficients and Pooled Within - Groups
Correlations Between Predictive Curriculum Variables and Discriminant
Functions for Groups Defined by Student Weighting

Predictive curriculum variable	<u>Function 1</u>		<u>Function 2</u>	
	Standardized discriminant function coefficient	Correlation with discriminant function	Standardized discriminant function coefficient	Correlation with discriminant function
Emotional	.01	.445	.16	.197
Behavioral	.57	.732	.07	.291
Academic	-.13	-.208	.44	.274
Vocational	.03	.189	-.53	-.486
Motor	.38	.558	-.60	-.480
Self-help	-.08	.362	.23	.103
Communication/ language	-.07	.327	-.30	-.206
Recreation/leisure	.41	.682	.21	-.008
Survival skills	.01	.396	-.15	-.129
Social skills	.17	.629	.52	.340

Table 59

Standardized Discriminant Function Coefficients and Pooled Within - Groups
Correlations Between Predictive Curriculum Variables and Discriminant
Functions for Groups Defined by Program Model

Predictive curriculum variable	Function 1		Function 2	
	Standardized discriminant function coefficient	Correlation with discriminant function	Standardized discriminant function coefficient	Correlation with discriminant function
Emotional	.03	.438	-.36	-.289
Behavioral	.56	.700	-.16	-.266
Academic	-.15	-.211	.08	.176
Vocational	.19	.282	.65	.770
Motor	.22	.401	-.05	-.096
Self-help	-.17	.273	-.24	-.087
Communication/ language	-.17	.263	.25	.203
Recreation/leisure	.39	.648	-.32	-.024
Survival skills	.11	.452	.46	.519
Social skills	.32	.666	.18	.085

Table 60

Standardized Discriminant Function Coefficients and Pooled Within - Groups
Correlations Between Predictive Curriculum Variables and Discriminant
Functions for Groups Defined by Diagnostic Cluster

Predictive curriculum variable	Function 1		Function 2	
	Standardized discriminant function coefficient	Correlation with discriminant function	Standardized discriminant function coefficient	Correlation with discriminant function
Emotional	.15	.276	.71	.056
Behavioral	.78	.749	-.07	-.142
Academic	.24	.050	.67	.651
Vocational	-.38	-.181	.36	.086
Motor	-.04	.214	-.25	-.308
Self-help	-.29	.037	-.28	-.359
Communication/ language	-.03	-.009	-.20	-.315
Recreation/leisure	.67	.338	.07	-.410
Survival skills	-.46	-.045	-.36	-.446
Social skills	.19	.360	-.27	-.420

The first discriminant variate was most highly correlated with behavioral (.732), recreation/leisure (.682), social skills (.629), and motor (.558) while the second discriminant was most highly correlated with vocational (-.486), motor (-.480), and social skills (.340). Based on the standardized discriminant function coefficients, the most discriminant variables for program model groups were as follows: function 1 - behavioral (.56), recreation/leisure (.39), and social skills (.32); function 2 - vocational (.65), survival skills (.46), emotional (-.36), and recreation/leisure (-.32). The first discriminant variate was most highly correlated with behavioral (.700), social skills (.666), and recreation/leisure (.648) while the second discriminant was most highly correlated with vocational (.770) and survival skills (.519). Based on the standardized discriminant function coefficients, the most discriminating variables for diagnostic cluster groups were as follows: function 1 - behavioral (.78), recreation/leisure (.67), survival skills (-.46), and vocational (-.38); function 2 - emotional (.71), academic (.67), vocational (.36), and survival skills (-.36). The first discriminant variate was most highly correlated with behavioral (.749), social skills (.360), and recreation/leisure (.338) while the second discriminant variate was most highly correlated with academic (.651), survival skills (-.446), and social skills (-.420).

Intervention discriminant functions. Three separate discriminant function analyses were also performed using the sixteen continuous variable ratings of intervention use as predictor variables. The first analysis explored the contribution of these variables to student severity classification (1.7, 2.2, 3.6), the second analysis explored the contribution of these sixteen intervention variables to student program model classification (RTP, SCIN, SCC, SC), and the third

analysis explored the contribution of these sixteen intervention variables to student diagnostic cluster classification (I - disruptive, impulsive; II - withdrawn, anxious; III - disordered thought process; IV - autism). The analysis exploring the relationship between the intervention ratings and classification by student severity yielded two significant functions separating the respective groups in multivariate space defined by the sixteen intervention predictor variables. The analysis exploring the relationship between intervention ratings and program model classification yielded three significant functions while the analysis exploring the relationship between intervention ratings and cluster diagnosis yielded one significant function and one that approached significance. These specifications of the discriminant functions are contained in Table 61. The power of this latter function was restricted somewhat as a result of smaller numbers of students in some of the diagnostic clusters. The function was reported because it did explain a large percentage of the variance with respect to classification by diagnostic cluster. For student severity and diagnostic cluster classification the presence of two significant (or nearly significant) functions for each of the classification types indicates that the null hypothesis of equality of group means can be rejected with respect to two separate dimensions, or discriminants. These two-function solutions presented classification group means that were clearly separated from each other in two-dimensional multivariate space. Group centroid values and graphic illustrations of the classification group separations for student severity and diagnostic cluster are contained in Figures 4 and 6 respectively. The three-function solution that appeared for program model classification indicates that these group means were clearly separated from each other in three-dimensional multivariate space.

Table 61

Discriminant Functions Using Intervention Strategy Variables

Classification group	Function	Eigen value	Percent of variance	Canonical correlation	Wilk's lambda	Chi-squared	D.F.	Significance
Student severity weighting	I	.56	88.4	.60	.60	185.1	32	.0000
	II	.07	11.6	.26	.93	25.4	15	.0443
Student program model	I	.97	80.3	.70	.40	311.9	48	.0000
	II	.16	13.3	.37	.80	77.4	30	.0000
	III	.08	6.4	.27	.93	25.7	14	.0286
Student diagnostic cluster	I	.48	59.0	.57	.50	95.7	48	.0001
	II	.26	32.6	.46	.74	41.6	30	.0779

Even though the statistical specifications of all three functions are listed in Table 61, the limitations this two-dimensional medium (paper) prohibits a graphic illustration of all three functions. Figure 5 contains a two-dimensional illustration of the two most highly significant program model functions along with group centroids for all three functions.

A visual inspection of Figures 4 and 5, along with their group centroid values, indicates that the statistically significant overall differences between the group centroids do not represent equal differences between the groups. Figure 5 illustrates that the 1.7 group was more clearly separated by the first function than were either of the other two groups. All three groups were separated by less than one standard deviation by the second function. Similarly the discriminant functions separating students in different program models show a clear separation of the RTP and SCIN groups by the first functions with relatively little separation by more than one standard deviation and on the third function all four groups were separated by less than one standard deviation.

The discriminant functions separating students in different diagnostic groups indicated that clearer differences appeared for these groups on the intervention variables. Both functions resulted in overall separation of more than one standard deviation. Function 1 clearly distinguished the disruptive, aggressive students (Group 1) from the other three groups (2, 3, 4) while function 2 clearly separated groups 2, 3, and 4 from each other and group 4 from group 1.

Two alternative indicators of the relative contributions of the discriminant predictors are standardized weights and correlations of the predictors with the discriminant variate. These two sets of indicators are

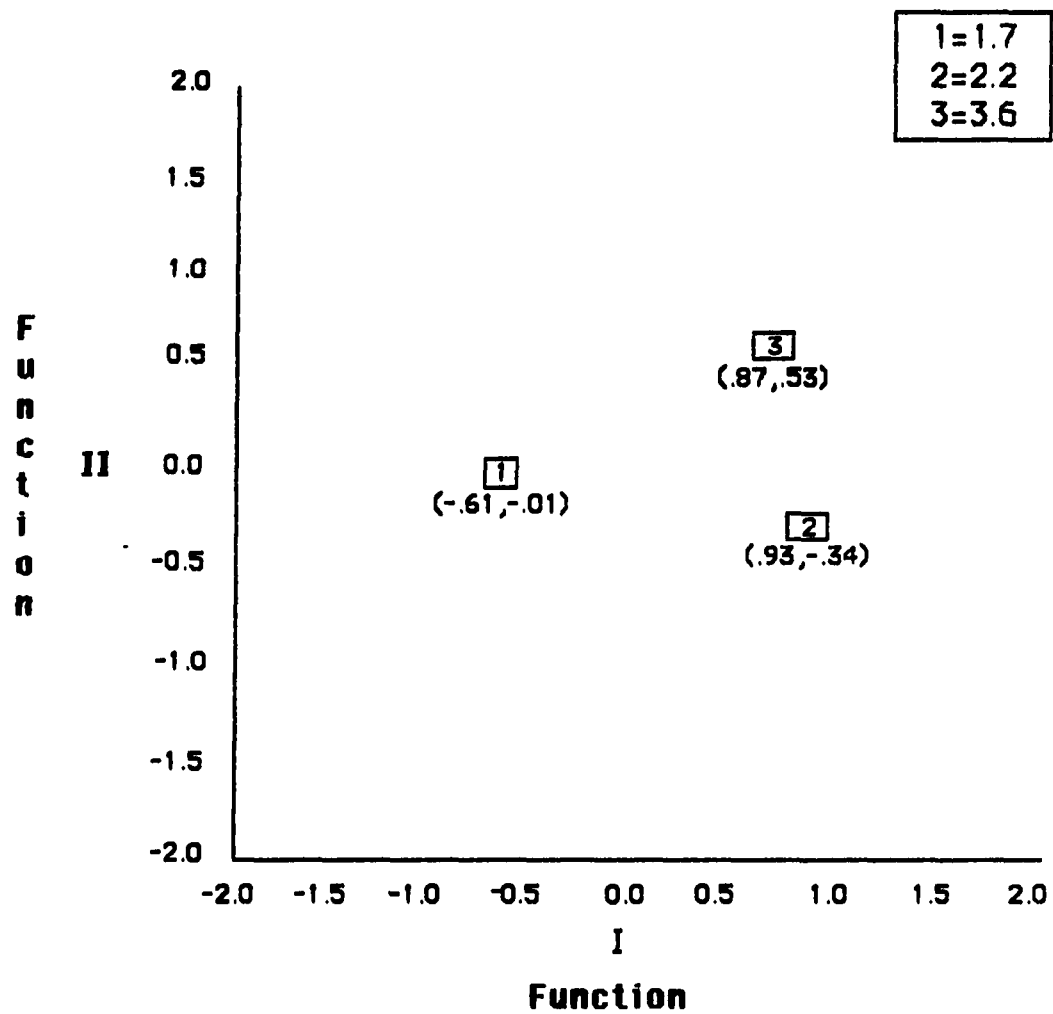


Figure 4. Separation of group centroids of three BD student weighting groups in multivariate space defined by sixteen intervention use variables.

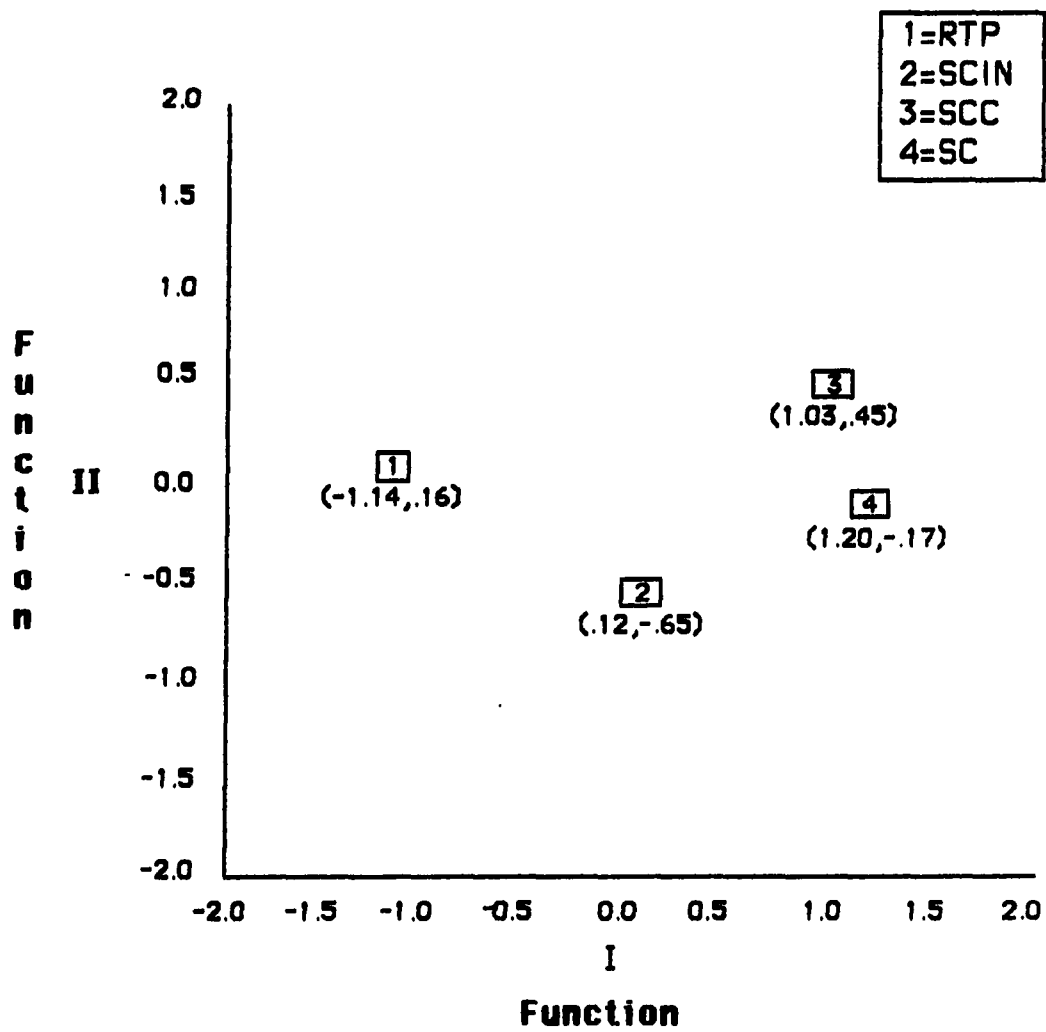


Figure 5. Separation of group centroids of three BD program model groups in multivariate space defined by sixteen intervention use variables.

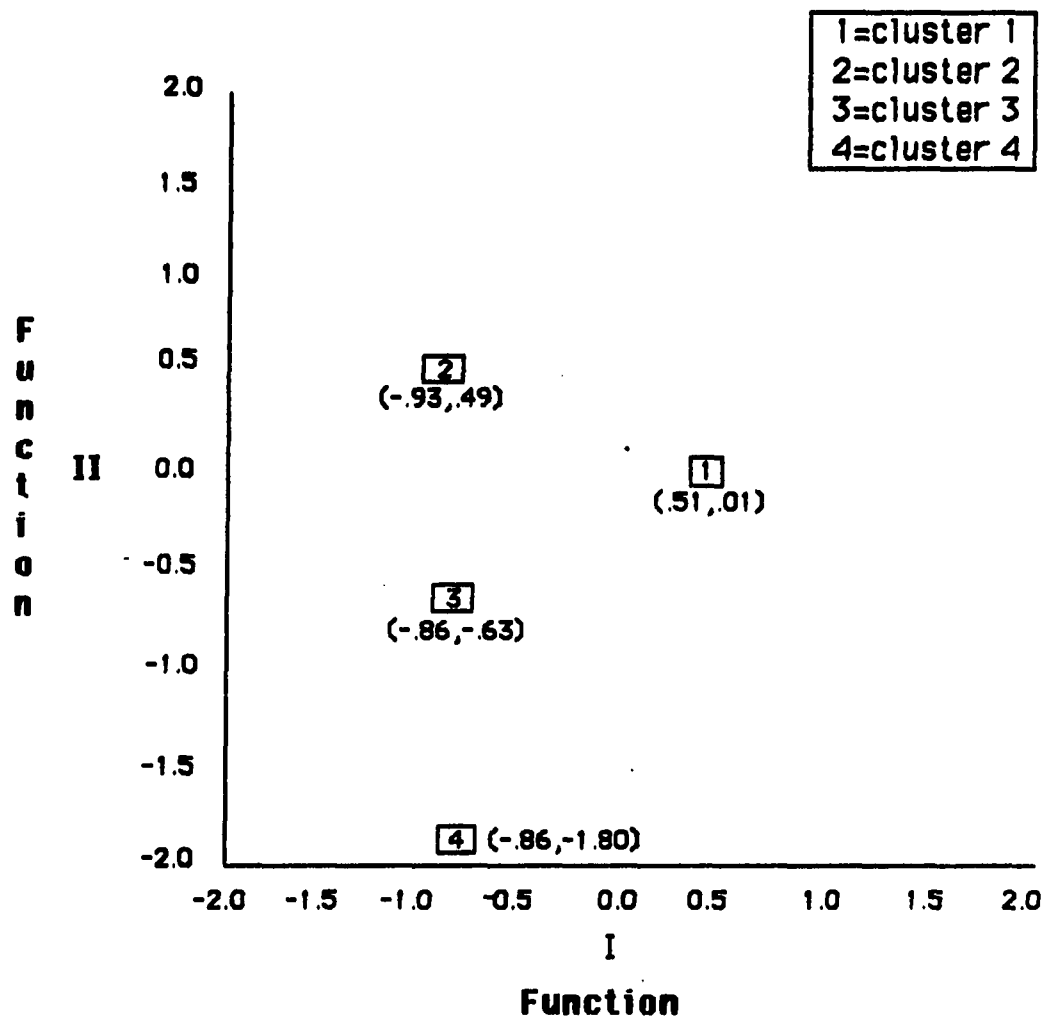


Figure 6. Separation of group centroids of four diagnostic cluster groups in multivariate space defined by sixteen intervention use variables.

presented in Table 62 for the student weighting group functions, in Table 63 for the program model group functions, and in Table 64 for the diagnostic cluster group functions. Based on the standardized discriminant function coefficients, the most discriminating intervention variables for the student weighting groups were as follows: function 1 - crisis management (.42), token economy (.38), individual counseling (-.34), and self-control strategies (.32); function 2 - time out/quiet room (.64), peer tutoring (-.61), self-control strategies (-.55), aversive consequences (-.36), modeling (.33), physical restraint (.33), and suspension/expulsion (.33). The first discriminant variate was most highly correlated with crisis management (.646), self-control strategies (.643), social skills training (.577), and token economy (.531) while the second discriminant variate was most highly correlated with suspension/expulsion (.425), physical restraint (.412), and time out/quiet room (.405). Based on the standardized discriminant function coefficients, the most discriminating intervention variables for program model groups were as follows: function 1 - token economy (.52), social skills training (.36), crisis management (.35), and individual counseling (-.32); function 2 - time out/quiet room (-.78), self-control strategies (.46), positive reinforcement (.44), modeling (-.43), token economy (.42), and life space interviewing (-.41); function 3 - physical restraint (.73), peer tutoring (-.67), self-control strategies (-.42), and peer counseling (.42). The first discriminant variate was most highly correlated with social skills training (.592), token economy (.574), crisis management (.570), and self-control strategies (.564). The second discriminant variate was most highly correlated with time out/quiet room (-.407), positive reinforcement (.398), and token economy (.375). The third discriminant variate was most highly correlated with physical restraint (.569)

Table 62

**Standardized Discriminant Function Coefficients and Pooled Within - Groups
Correlations Between Predictive Intervention Variables and Discriminant
Functions for Groups Defined by Student Weighting**

Predictive intervention variable	<u>Function 1</u>		<u>Function 2</u>	
	Standardized discriminant function coefficient	Correlation with discriminant function	Standardized discriminant function coefficient	Correlation with discriminant function
Individual counseling	-.34	.052	.20	.153
Group counseling	.21	.414	-.29	-.154
Life space intervention	-.10	.289	.20	.084
Crisis management	.42	.646	.16	.173
Peer tutoring	-.15	.181	-.61	-.296
Peer counseling	-.08	.221	.12	-.077
Generalization training	.20	.425	-.02	.011
Aversive consequences	.07	.346	-.36	-.084
Suspension/expulsion	.12	.311	.33	.425
Positive reinforcement	.14	.277	-.01	-.175
Modeling	-.13	.234	.33	.036
Physical restraint	.20	.375	.33	.412

Table 62 (continued)

Predictive intervention variable	Function 1		Function 2	
	Standardized discriminant function coefficient	Correlation with discriminant function	Standardized discriminant function coefficient	Correlation with discriminant function
Social skills training	.17	.577	.05	-.104
Self-control strategies	.32	.643	-.55	-.185
Time out/quiet room	.01	.428	.64	.405
Token economy	.38	.531	-.17	-.156

and social skills training (-.304). Based on the standardized discriminant function coefficients, the most discriminating intervention variables for cluster diagnostic groups were as follows: function 1 - aversive consequences (.56), token economy (.54), peer counseling (-.45), and self-control strategies (.41); function 2 - peer tutoring (.58), social skills training (-.54), group counseling (.51), crisis management (.43), and self-control strategies (-.40). The first discriminant variate was most highly correlated with token economy (.589), aversive consequences (.561), self-control strategies (.483), crisis management (.456), and group counseling (.400). The second discriminant variate was most highly correlated with peer tutoring (.393), group counseling (.359), and individual counseling (.340).

Table 63

Standardized Discriminant Function Coefficients and Pooled Within - Groups Correlations Between Predictive Intervention Variables and Discriminant Functions for Groups Defined by Program Model

Predictive intervention variable	Function 1		Function 2		Function 3	
	Standardized discriminant function coefficient	Correlation with discriminant function	Standardized discriminant function coefficient	Correlation with discriminant function	Standardized discriminant function coefficient	Correlation with discriminant function
Individ. counseling	-.32	.065	.15	.002	.19	.077
Group counseling	.06	.370	-.04	-.157	-.28	-.203
Life space interven.	-.02	.303	-.41	-.261	.00	.042
Crisis management	.35	.570	.01	-.087	.18	.084
Peer tutoring	-.14	.202	.05	-.078	-.67	-.263
Peer counseling	.04	.266	.00	-.134	.42	.014
Generalization tng.	.17	.346	.05	-.029	.22	.148

Table 63 (continued)

Predictive intervention variable	Function 1		Function 2		Function 3	
	Standardized discriminant function coefficient	Correlation with discriminant function	Standardized discriminant function coefficient	Correlation with discriminant function	Standardized discriminant function coefficient	Correlation with discriminant function
Aversive consequences-.03		.269	.32	.137	-.36	-.219
Suspension/expulsion .19		.300	-.23	-.281	-.04	.088
Positive reinforcement -.02		.190	.44	.398	.29	.083
Modeling -.06		.244	-.43	-.133	.16	-.047
Physical restraint .12		.312	.27	-.002	.73	.569
Social skills training .36		.592	-.22	-.121	-.24	-.304
Self-control strategies .16		.564	.46	.110	-.42	-.256
Time out/quiet room .19		.455	-.78	-.407	.17	.081
Token economy .52		.574	.42	.375	.04	-.017

Table 64

**Standardized Discriminant Function Coefficients and Pooled Within - Groups
Correlations Between Predictive Intervention Variables and Discriminant
Functions for Groups Defined by Diagnostic Cluster**

Predictive intervention variable	<u>Function 1</u>		<u>Function 2</u>	
	Standardized discriminant function coefficient	Correlation with discriminant function	Standardized discriminant function coefficient	Correlation with discriminant function
Individual counseling	.13	.228	.27	.340
Group counseling	.35	.400	.51	.359
Life space interviewing	.09	.277	.05	.195
Crisis management	-.04	.456	.43	.185
Peer tutoring	.14	.199	.58	.393
Peer counseling	-.45	.162	-.15	.188
Generalization training	-.23	.016	-.04	-.070
Aversive consequences	.56	.561	-.12	-.185
Suspension/expulsion	.33	.249	.34	.170
Positive reinforcement	-.31	.095	-.32	-.264
Modeling	-.31	.037	-.08	-.109
Physical restraint	.03	.265	-.26	-.121

Table 64 (continued)

Predictive intervention variable	<u>Function 1</u>		<u>Function 2</u>	
	Standardized discriminant function coefficient	Correlation with discriminant function	Standardized discriminant function coefficient	Correlation with discriminant function
Social skills training	.09	.369	-.54	-.168
Self-control strategies	.41	.483	-.40	-.289
Time out/quiet room	-.11	.382	-.15	-.089
Token economy	.54	.589	-.04	-.198

Support Service

A large portion of the information obtained from teachers was concerned with the support services being provided to them by other special education professionals. The support service items were divided into three sections as follows: (1) student services, (three items) including ongoing individual services provided by a support person directly to the student; (2) teacher services, (three items), including consultation regarding the student's developmental patterns, overall strengths and weaknesses, and broad programming goals in the classroom; consultation regarding behavior management in the classroom, and consultation regarding instructional materials and techniques in the classroom; (3) parent services (one item), including counseling or consultation with parents regarding parenting skills, home behavior management, appropriate expectations, understanding the disability, etc.

For each item four pieces of information were obtained. The respondents were first asked to rate the degree to which a need existed for the particular support service in question and secondly, the degree to which that need was met. They then identified the principal provider of the support service they had just rated and finally, the effectiveness of the service. Each of the ratings (need, need met, effectiveness) was on a four-point scale with 1 = high and 4 = low. To indicate the provider of the service in question the respondents circled the number as follows: 1 = consultant, 2 = psychologist, 3 = social worker, and 4 = other.

The analyses of this data looked at broad differences in need, provision, providers, and effectiveness for different types of services and across different program models and disability weights. Another analysis examined the difference between the "need" and "need met" ratings. This analysis provides a value on which to directly evaluate the degree to which provision of support services was adequate to meet the individual student's needs in each of the cases rated. This difference score, if positive, reflects a provision of service that was more than adequate to meet the indicated need. A negative score indicates a situation where the need was greater than service provided.

The analysis of the support service data was performed using two different sortings of the data. The analysis of all items pertaining to student services was completed using responses from all of the data that were returned (each survey representing one student). The items regarding teacher and parent services were analyzed by using only one survey from each teacher. Since these items asked teachers to rate services for their entire classroom rather than for an individual student, an analysis of the data on a student basis would have

resulted in more than one set of responses from some of the teachers and observations that were not independent. To achieve independence the questionnaires were sorted by a teacher identification number that had been assigned and the first case (numerically) was selected for teachers who had more than one student in the sample. The number of cases analyzed for the teacher service and parent service items was smaller as a result of this procedure.

Need and Provision of Support Services

A summarization of the teachers' ratings of the degree of need and the degree to which the need was met for each of the seven support service items is contained in Table 65. These ratings were provided on a four-point scale where 1 = high and 4 = low. The midpoint on the scale was 2.5. Therefore, mean ratings that are lower indicate a higher rating. Thus, mean ratings below 2.5 can be seen as being toward the high end of the continuum and mean ratings above 2.5 indicate a rating toward the lower end of the continuum. The means ranged from 1.41 to 3.11 for the "need" ratings and from 1.91 to 3.00 for the ratings of the degree to which that need was met. These ranges indicate a considerable difference of opinion between at least some of the ratings.

General contrasts between the mean totals within the student service and teacher service areas were performed using an analysis of variance procedure. These results are also contained in Table 65. Statistically significant differences were apparent between services in both the student and teacher categories with respect to the need for services and the degree to which the need was met. The greatest rated need for student support services was in the area of individual counseling, followed by group counseling, followed by crisis intervention with

Table 65

Differences Between General Ratings of Support Services

Service	<u>Need</u>		<u>Met</u>		<u>Effectiveness</u>	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Individual counseling (1)	1.9	1.1	2.5	1.1	2.5	1.1
Group counseling (2)	2.3	1.2	2.8	1.2	2.6	1.2
Crisis intervention (3)	2.6	1.2	2.5	1.2	2.5	1.2
	$F(2,419) = 66.8$		$F(2,384) = 12.0$		$F(2,343) = 1.9$	
	$p = .000$		$p = .000$		$p = .15$	
	$3 > 2 > 1$		$2 > 3 = 1$		$1 = 2 = 3$	
Consultation-lrng & develop.(1)	1.9	0.9	2.2	1.0	2.1	0.9
Consultation-beh. mgmnt. (2)	2.3	1.1	2.2	1.0	2.1	1.0
Consultation-instruction (3)	2.3	1.0	2.3	1.0	2.2	0.9
	$F(2,294) = 30.7$		$F(2,283) = 3.9$		$F(2,269) = 4.4$	
	$p = .000$		$p = .02$		$p = .012$	
	$3 = 2 > 1$		$1 = 2, 2 = 3$		$1 = 2, 2 = 3$	
			$1 < 3$		$1 < 3$	
Parent coun. & consultation	1.8	0.9	2.8	1.0	2.7	1.0

Note: Range: 1 = high to 4 = low.

each rated difference statistically significant. The rated need for teacher services indicated the teachers' need for consultation on student development and learning was greater than for consultation on either behavior management or instructional techniques, which were rated equally. Contrasts between the ratings for the student service "met" items revealed that the individual counseling and crisis intervention needs were met equally well, with both being met to a greater degree than the group counseling need. There were no significant differences between the rated degree to which teacher service needs were met. There was one slight difference in the ratings of the degree to which teacher service needs were met. Teacher consultation service needs for learning and development were rated as having been met slightly more than were consultation needs for instruction. The ratings for effectiveness of support services indicated only one difference between the services. Within the teacher service area the teachers indicated that consultation they received for learning and development was more effective than that received for instruction.

The mean ratings within each support service area were also compared by program model. These comparisons appear in Table 66. Of the 14 comparisons made, significant differences for support service ratings between program models appeared in 6. They were: degree of need for group counseling with the student; degree of need and degree of need met for crisis intervention with the student; degree of need for teacher consultation on learning and development; degree of need for teacher consultation on behavior management; and, degree of need for parent counseling and consultation. In four of the five significant program model differences for need, the difference was in the direction of a lower need for RTP programs. In one, a significant difference in need appeared

between the SCIN and more restrictive models. There were no differences in support service need between SCC and SC program models. With respect to the degree need was met, the one significant difference was in the direction of fewer needs met for RTP and SCIN. Again, no differences were apparent between SCC and SC program models for the degree to which support service needs were met.

In addition to the comparisons of means for each of these service areas, another statistic was examined. This statistic was the difference between the rated need and the degree the need was met for each type of support service. Since a low score equals a high rating in each of these areas, a large, positive difference score indicated that the need for that support service was adequately met. A large, negative difference score indicated that the need for a particular service was greater than the degree to which the need was met. These difference scores are also contained in Table 66. Most means (19 of 28) differed by 0.50 or less and most (24 of 28) discrepancies were in the negative direction, indicating a greater need than was being met. However, since most of the mean differences (19 of 28) were 0.50 or less in magnitude, it appears that there was a generally adequate provision of those services. Those 9 services with discrepancies greater than 0.50 were all in the negative direction and included the following: parent counseling and consultation (RTP, SCIN, SCC, SC); individual counseling with the student (SCIN, SC); and group counseling with the student (SCIN, SCC, SC).

Providers of Support Services

Each of the teachers who rated the provision of and need for support services in their classrooms also indicated who the principal providers of those support services were. A summary of the providers are listed in Table 67. For

Table 66

Degree of Need and Provision Status of Seven Support Services

Service	Model	<u>Need</u>		<u>Met</u>		Difference
		Mean	S.D.	Mean	S.D.	
Individual counseling with student	RTP	2.05	1.15	2.52	1.03	-0.47
	SCIN	1.78	0.89	2.65	1.07	-0.87
	SCC	1.99	1.19	2.49	1.09	-0.50
	SC	1.77	1.08	2.73	1.04	-0.96
	F	<u>F</u> (3,393) =1.75		<u>F</u> (3,380) =.80		
	alpha	<u>p</u> = .1562		<u>p</u> = .4965		
	N-K ^a	-----		-----		
Group counseling with student	RTP	2.73	1.20	2.95	1.08	-0.22
	SCIN	2.33	1.18	3.00	1.13	-0.67
	SCC	2.06	1.19	2.65	1.18	-0.59
	SC	2.06	1.23	2.76	1.10	-0.70
	F	<u>F</u> (3,387) =7.74		<u>F</u> (3,365) =2.09		
	alpha	<u>p</u> = .0000		<u>p</u> = .1015		
	N-K	RTP>SCIN=SCC=SC-----				

Note. Range: 1 = high to 4 = low.

^aNewman-Keuls.

Table 66 (continued)

Service	Model	<u>Need</u>		<u>Met</u>		Difference
		Mean	S.D.	Mean	S.D.	
Crisis interven. with student	RTP	3.11	1.05	2.88	1.07	0.23
	SCIN	2.54	1.19	2.82	1.05	-0.28
	SCC	2.24	1.14	2.35	1.16	-0.11
	SC	2.00	1.18	2.08	1.05	-0.08
	F	<u>F</u> (3,381) =17.93		<u>F</u> (3,349) =9.42		
	alpha	<u>p</u> = .0000		<u>p</u> = .0000		
	aN-K	RTP>SCIN,SCC,SC RTP=SCIN>SCC=SC SCIN>SC				
Teacher consultation Ing. & develop.	RTP	2.16	0.92	2.18	0.88	-0.02
	SCIN	1.89	0.79	2.38	1.02	-0.49
	SCC	1.67	0.81	2.05	0.97	-0.38
	SC	1.72	0.69	2.08	0.96	-0.36
	F	<u>F</u> (3,271) =5.90		<u>F</u> (3,265) =1.56		
	alpha	<u>p</u> = .0011		<u>p</u> = .1993		
	aN-K	RTP>SCIN=SCC=SC-----				

Table 66 (continued)

Service	Model	<u>Need</u>		<u>Met</u>		Difference
		Mean	S.D.	Mean	S.D.	
Teacher consultation behavior mgmt. 0.02	RTP	2.76	0.98	2.38	1.02	0.38
	SCIN	2.10	0.97	2.48	0.98	-0.38
	SCC	2.07		1.08	2.09	1.07
	SC	1.90	0.88	1.97	1.06	-0.07
	F	F (3,272) =12.06		F (3,267) =3.02		
	alpha	p = .0000		p = .0302		
	aN-K	RTP>SCIN=SCC=SC-----				
Tchr consultation instructional	RTP	2.51	0.96	2.24	0.93	0.27
	SCIN	2.25	0.89	2.49	0.97	-0.24
	SCC	2.17	1.05	2.37	0.99	-0.20
	SC	2.10	0.99	2.18	1.04	-0.08
	F	F (3,271) =2.59		F (3,272) =1.27		
	alpha	p = .0531		p = .2842		
	aN-K	-----				

Table 66 (continued)

Service	Model	<u>Need</u>		<u>Met</u>		Difference
		Mean	S.D.	Mean	S.D.	
Parent counseling consultation	RTP	2.06	0.93	2.71	1.03	-0.65
	SCIN	1.89	0.87	2.93	0.99	-1.04
	SCC	1.45	0.75	2.75	1.00	-1.30
	SC	1.46	0.82	2.90	0.97	-1.44
	F	<u>F</u> (3,273) =8.67		<u>F</u> (3,271) =.8209		
	alpha	<u>p</u> = .0000		<u>p</u> = .4833		
	aN-K	RTP=SCIN>SCC=SC-----				

each type of service the teacher was to have indicated the discipline (psychologist, special education consultant, social worker, or other) of the principal provider of that service. Many teachers, however, also responded by indicating there was more than one principal provider for a particular service. For purposes of analysis these responses were grouped into the category of "other" providers as it was impossible to determine a principal provider from the raw data. When these items were developed, it was the intent of the researchers to ask the teachers to indicate one principal provider. If more than one person provided the service, then a selection of the "principal" provider would necessitate the choice of the person providing the bulk of the service. A

perusal of Table 67 reveals that this intent was apparently not delineated clearly in the instrument and in fact it was not explicitly stated. Many of the respondents did not indicate a principal provider, but indicated all who were providing the service. Thus, the category of "other" provider is actually a category of "other/multiple" providers.

The principal provider for each of the student service categories was indicated to be other/multiple providers, with 55, 66, and 81% of the respondents in the respective categories of individual counseling, group counseling, and crisis intervention giving this response. When a single discipline was indicated, school social workers were listed most often as principal providers of counseling (both group and individual) services to students. Crisis intervention services were by far the service least often principally provided by an AEA support staff member with school social workers and school psychologists each providing this service to 8% of the students in the sample. These provided by staff from the local education agency (LEA) rather than being solely the province of the AEA staff. This was especially true for crisis intervention services where informal notations on the surveys indicated that administrators, school counselors, and teachers were often the primary providers of crisis intervention services.

In contrast, the provision of teacher services was clearly the primary function of the special education consultant with the consultant being most often listed as principal provider in all three of the teacher service areas. These areas included consultation on learning and development, consultation on behavior management, and consultation on instructional techniques and materials where the special education consultant was found to be the principal

Table 67

Providers of Support Services

Service	Discipline	N	%
Individual counseling with student	Consultant	22	6
	Psychologist	71	18
	Social worker	85	21
	Multiple/other	<u>220</u>	<u>55</u>
	Total	398	100
Group counseling with student	Consultant	10	3
	Psychologist	41	12
	Social worker	66	19
	Multiple/other	<u>233</u>	<u>66</u>
	Total	350	100
Crisis intervention with student	Consultant	10	3
	Psychologist	29	8
	Social worker	30	8
	Multiple/other	<u>290</u>	<u>81</u>
	Total	359	100

Table 67 (continued)

Service	Discipline	N	%
Teacher consultation learning & develop.	Consultant	117	43
	Psychologist	35	13
	Social worker	18	6
	Multiple/other	<u>103</u>	<u>38</u>
	Total	273	100
Teacher consultation Behavior mgmt.	Consultant	109	40
	Psychologist	42	16
	Social worker	25	9
	Multiple/other	<u>93</u>	<u>35</u>
	Total	269	100
Teacher consultation instructional	Consultant	179	64
	Psychologist	8	3
	Social worker	5	2
	Multiple/other	<u>89</u>	<u>31</u>
	Total	281	100

Table 67 (continued)

Service	Discipline	N	%
Parent counseling consultation	Consultant	29	11
	Psychologist	30	11
	Social worker	78	29
	Multiple/other	<u>130</u>	<u>49</u>
Total		267	100

provider to 43, 40, and 64% of the classrooms sampled, respectively. The second most frequently listed provider category was other/multiple provider, again in all three categories of teacher services.

The principal provider listed for parent counseling and consultation was the multiple/other category which was indicated for 49% of the classrooms. The second most frequent providers of parent services were the school social workers, who were the principal providers in 29% of the classrooms sampled.

Perceived Effectiveness of Support Services

In addition to rating the degree of need, degree the need was met, and indicating the principal provider for each support service, the teachers also rated the degree to which they perceived that the particular support service had been

provided effectively. A summary of these effectiveness ratings appears in Tables 68 and 69. Again, a rating of 1 = high effectiveness and a rating of 4 = low effectiveness so that lower mean scores indicate more effective provision of services as perceived by teachers.

The mean ratings of support service effectiveness ranged from 2.10 to 2.78 across the different program models and providers. With the mean of the scale being 2.50, this range indicates ratings that were relatively close to the mean. A rough rule of thumb might interpret means of less than 2 to indicate high effectiveness and means that were greater than 3 to indicate low effectiveness. Using this rule, none of the ratings fall into either the high or low category, suggesting support service effectiveness was generally perceived by the teachers as mediocre. Within this restricted range some trends were tested by program model and provider. The means for the total sample tended to be lower (more effective) for teacher services than for student or parent services suggesting that teachers were slightly more satisfied with the consultation they received than they were with the service provided directly to their students and the students' parents. One difference appeared between program models and it was with respect to crisis intervention services. Crisis intervention support services were rated as more effective by SCC programs as compared to RTP programs, and by SCC and SC programs as compared to SCIN programs (see Table 68). The data collection instrument did not contain items that allowed teachers to expand on these ratings by indicating what could be done to improve the support service they were receiving. The ratings of perceived benefit differed by provider as well with 6 of 7 services demonstrating differences in perceived effectiveness between categories of providers. In all cases where differences existed, teachers

indicated that support services provided by multiple staff members or someone other than an AEA multidisciplinary team member were less effective than when the service was provided by a single AEA support staff person (see Table 69). Even though support services were very frequently provided by more than one person or someone other than an AEA staff member, these services were not rated as most effective.

Integration/Exit Procedures

The final portion of the questionnaires asked teachers to respond to a series of items that inquired about the integration and exit procedures for their BD program. This analysis was also completed using only one set of responses from each teacher who responded. In cases where more than one student had been selected from the same classroom (teacher), only one questionnaire from that classroom (teacher) was used. To accomplish this, each teacher who participated was assigned an identification number. The questionnaires were then sorted by teacher. If a teacher's identification number appeared more than once, the first case in numerical order was selected for inclusion.

A summary of the information on integration and exit procedures is contained in Table 70. Thirty-eight percent of the total programs sampled indicated that they had a written set of integration/exit procedures. Fewer programs had specified procedures to be used in the integration exit process (30%), specified criteria against which to measure readiness for integration/exit (29%), specified procedure for monitoring and follow-up (29%), or specified procedure for generalization of behavior (20%). The frequency with which these integration/exit components existed varied as a function of the program

Table 68

Perceived Effectiveness of Support Services by BD Teachers

		Support		
		Student		
Program model		Individual counseling	Group counseling	Crisis intervention
RTP	N	136	106	109
	Mean	2.48	2.83	2.69
	S.D.	1.00	1.13	1.05
SCIN	N	99	81	87
	Mean	2.72	2.98	2.87
	S.D.	0.98	1.04	1.02
SCC	N	88	85	87
	Mean	2.52	2.62	2.36
	S.D.	1.04	1.07	1.09
SC	N	48	48	49
	Mean	2.48	2.62	2.33
	S.D.	0.97	1.06	0.97
TOTAL	N	371	320	332
	Mean	2.55	2.78	2.60
	S.D.	1.00	1.08	1.06
ANOVA F		(3,367)1.26	(3,316)1.89	(3,328)4.97
alpha		p = .287	p = .1318	p = .0022
Newman-Keuls		-----	-----	RTP>SCC SCIN>SCC=SC

Note. Range: 1 = high effectiveness to 4 = low effectiveness.

services

Behavior management	Teacher consultation		Parent
	Instructional materials/ techniques	Learning or development	Counseling consultation
102	105	98	100
2.32	2.14	2.09	2.66
1.00	0.92	0.84	0.97
70	68	64	67
2.26	2.34	2.31	2.85
0.99	0.97	0.89	1.00
57	59	60	57
1.98	2.20	2.00	2.63
0.99	0.98	0.88	1.03
37	36	37	37
1.89	2.22	2.00	2.78
1.02	0.99	0.94	0.98
266	268	259	261
2.17	2.22	2.11	2.72
1.01	0.95	0.88	0.99
(3,262)2.62	(3,264)0.58	(3,255)1.66	(3,257)0.71
p = .0514	p = .63	p = .1758	p = .5450

Table 69

Perceived Effectiveness of Support Services by BD Teachers

		<u>Support</u>		
		<u>Student</u>		
Provider		Individual counseling	Group counseling	Crisis intervention
Consultant (1)	N	22	10	10
	Mean	1.73	1.90	2.80
	S.D.	0.77	0.74	0.92
Psychologist (2)	N	71	40	28
	Mean	2.23	2.35	1.82
	S.D.	0.83	0.95	0.82
Social worker (3)	N	84	64	28
	Mean	2.63	2.59	2.71
	S.D.	1.07	1.11	0.94
Other/ multiple (4)	N	212	223	280
	Mean	2.66	2.87	2.60
	S.D.	0.98	1.08	1.06
TOTAL	N	389	337	346
	Mean	2.52	2.73	2.55
	S.D.	1.00	1.08	1.05
ANOVA	F	(3,384)8.88	(3,333)5.46	(3,342)5.33
alpha		p = .0000	p = .0011	p = .0013
Newman- Keuls		4=3>2=1	4>1=2	3=4>2

Note. Range: 1 = high effectiveness to 4 = low effectiveness.

services

Behavior management	Teacher consultation		Parent
	Instructional materials/ techniques	Learning or development	Counseling consultation
108 1.97 0.92	179 2.04 0.95	114 2.04 0.81	29 2.52 0.87
42 2.07 0.87	8 2.38 0.52	35 2.06 0.80	30 2.27 0.94
23 2.09 0.73	5 2.40 0.89	16 2.12 0.81	75 2.51 0.95
92 2.37 1.09	89 2.45 0.90	102 2.19 0.95	128 2.91 1.00
265 2.14 0.97	281 2.19 0.94	267 2.10 0.87	262 2.68 0.99
(3,261)2.94 p = .0336 4>1	(3,277)3.97 p = .0086 4>1	(3,263).5256 p = .6650 -----	(3,258)5.25 p = .0016 4>2=3

Table 70

Integration/Exit Procedures

		<u>Total</u>	<u>Yes</u>	
	Model	N	N	%
Integration/exit procedures written	RTP	106	28	26
	SCIN	71	25	35
	SCC	58	25	43
	SC	40	26	65
	Total	275	104	38
Specified procedures for process to be followed	RTP	106	18	17
	SCIN	69	17	25
	SCC	60	23	38
	SC	40	25	62
	Total	275	83	30
Specified criteria for determin. readiness for integration/exit	RTP	106	18	17
	SCIN	69	20	29
	SCC	60	20	33
	SC	40	22	55
	Total	275	80	29

Table 70 (continued)

		<u>Total</u>	<u>Yes</u>	
	Model	N	N	%
Specified procedure for generalization of behavior	RTP	106	13	12
	SCIN	69	14	20
	SCC	60	14	23
	<u>SC</u>	<u>40</u>	<u>15</u>	<u>37</u>
	Total	275	56	20
Specified procedures for monitoring and followup	RTP	106	24	23
	SCIN	69	16	23
	SCC	60	22	37
	<u>SC</u>	<u>40</u>	<u>19</u>	<u>47</u>
	Total	275	81	29

model. In all cases, the proportion of programs that had specified procedures increased as the program model became more restrictive. Very few teachers in RTP programs indicated that their integration/exit procedures were specified while nearly half of the SC programs reported that specified procedures existed.

Additional items asked respondents to indicate which staff members were responsible for making integration/exit decisions and the staff members responsible for providing support during the student's transition. These results

are contained in Tables 71 and 72. Of those who responded to the decision-making item, 93% reported that the multidisciplinary team was responsible for making integration/exit decisions. There were only minor differences on this item between program models. With respect to the item asking about the provision of support for the student during an integration or exit transition, the responses were evenly split between two categories. Forty-eight percent indicated that the multidisciplinary team (AEA and building) provided support during transition while 46% reported that all of the transitions were supported by only building personnel with no AEA involvement. Again, no major differences were apparent between program models.

Finally, respondents were asked to rate the degree to which integration/exit decisions for their program were based on objective data or on more subjective clinical judgement. These ratings were made on a six-point scale with 1 = highly objective data-based decisions and 6 = highly subjective clinical judgement decisions. The mean of these ratings ($N = 202$) was 3.48 for the entire sample, indicating a rating almost exactly at the midpoint (3.5) of the scale. An analysis of variance of these ratings by program model resulted in a nonsignificant F ratio, suggesting that these ratings did not differ by program model. The ratings on this item ranged from 1 to 6, indicating a wide difference between specific classrooms. However, the ANOVA clearly indicates that no consistent program model differences were present.

Table 71

Staff Members Responsible for Making Integration/Exit Decisions

Staff	Program model									
	RTP		SCIN		SCC		SC		Total	
	N	%	N	%	N	%	N	%	N	%
Team	39	96	28	94	27	84	31	97	125	93
Tchr & consult.	1	2	1	3	2	6	1	3	5	4
Consult. & psych.	0	0	0	0	0	0	0	0	0	0
BD tchr &										
reg. tchr.	0	0	1	3	0	0	0	0	1	0
Teacher	1	2	0	0	3	10	0	0	4	3
Total	41	100	30	100	32	100	32	100	135	100
Percent by model	30%		22%		24%		24%		100	

Table 72

Staff Responsible for Providing Support During Integration/Exit Transition

Staff	Program model									
	<u>RTP</u>		<u>SCIN</u>		<u>SCC</u>		<u>SC</u>		<u>Total</u>	
	N	%	N	%	N	%	N	%	N	%
Building staff (<2)	15	39	7	25	13	42	11	36	46	36
Building team (>2)	4		10	4	14	3	10	2	6	13
	10									
AEA & bldg.										
team	17	45	15	54	13	42	16	52	61	48
Psychologist	1	3	1	3.5	1	3	1	3	4	3
Social worker	1	3	1	3.5	1	3	1	3	4	3
Total	38	100	28	100	31	100	31	100	128	100
Percent by model		30%		22%		24%		24%		100

Discussion

This study was a broadly based description and evaluation of a range of variables important to the education of behavior disordered students in Iowa. Data were collected describing students, teachers, programs, and procedures. Data were also collected and analyzed that attempted to evaluate the quality of these programs, procedures, and services provided to behavior disordered students in Iowa.

The findings of this study that were of primary importance were those in the areas of evaluation procedures, evaluation-EIP congruence, program model differentiation, and support services to parents. Results of the descriptive and evaluative portions of the study are reviewed and discussed in the following sections. In addition, the limitations of the study and implications of the primary findings are addressed.

Student Characteristics

The demographic characteristics of behaviorally disordered students have been the subject of some debate and controversy, especially with respect to potential overrepresentation of minority students in the programs for the behaviorally disordered (National Coalition of Advocates for Students, 1988). Such overrepresentation raises issues related to the possibility of differential treatment of students based on race and insensitivity to differences in cultural values and expectations for students' behavior.

The characteristics of the behaviorally disordered (BD) students in this sample were interpreted as reflective of the characteristics of the general

population of BD students in Iowa. This interpretation is supported by the high return rate obtained in the study and the consistency of the return rate across different program models and Area Education Agencies.

Race and Sex

Based on the racial composition figures of this sample, overrepresentation of minority students seems to exist for behavior disorders programs in Iowa. During the 1987-88 school year only 2.6% of the total student population was black (W. Bean, personal communication, 1988) as compared to 6% for this sample of BD students. These figures are especially noteworthy in light of recent controversy regarding the overrepresentation of minority students in special education programs (National Coalition of Advocates for Students, 1988; Reschly, Kicklighter, & McKee, 1988a, 1988b, 1988c).

Interpretation of the overrepresentation pattern revealed in this study must be tentative. The actual number of minority students was extremely small. A cautious commentary is appropriate for the black students (N=24) who constituted 6% of this sample of BD students. For these black students in Iowa the conclusion of the National Coalition (1988) report cited earlier appears to be well supported. However, overrepresentation does not automatically establish discrimination, legally or conceptually (Reschly et al., 1988b, 1988c). To establish discrimination it is necessary to determine whether equal treatment regardless of race has been provided. Throughout this study an examination was made of the prereferral, referral, evaluation, classification, placement and programming treatment with respect to race. No systematic or consistent differences were found. This lack of difference suggests that, for Iowa BD students, the equal

treatment criteria were met. A definitive statement on equal treatment would require further study of a much larger sample of black BD students. Such further study might indicate that other variables such as socioeconomic status are interacting with race to produce disproportionate numbers of minority students in special education programs.

The students in this sample also demonstrated disproportionate numbers as a function of the sex of the student, with males outnumbering females by more than a 4:1 ratio. Overrepresentation of males in BD programs has been documented elsewhere (Kelly, Bullock, & Dykes, 1977), but at a much lower (2:1) level. It is difficult to interpret why male overrepresentation of BD students is exaggerated in Iowa. Overrepresentation in general seems very likely to be a function of differences in gender-role behavior that would lead males to engage in acting-out behaviors more typically than females. Speculation about the higher figures for Iowa males might include the effects of the behavioral disorder conceptualization or perhaps sampling error. With the randomized procedure that was used, however, it does not seem likely that error is responsible. Again, it seems that further study would be necessary to definitively determine the mechanisms involved.

Other Student Characteristics

The grade and age characteristics of the students clearly indicate that the preadolescent and adolescent years are the time during which disordered behavior is most likely to manifest itself in Iowa students. Results similar to these have also been reported with respect to referral rates (Redick, 1973; Morse, Cutler, & Fink, 1964) and delinquency (Kvaraceus, 1966). Adolescence is

obviously a potentially turbulent and troubling developmental period that contributes to the onset of disordered behavioral and emotional functioning.

The retention data for BD students suggest that the practice of retention is widespread with the population of students who are eventually placed in these programs. The retention rate for the Iowa total student population is not known, but the 30% retention rate for Iowa BD students is at least twice as high as the 10-15% estimate of retention rates nationally for the general student population (Medway, 1987). Since it has been demonstrated that retention of special education students is generally not effective (Medway, 1987), it is assumed that very few of these retentions occurred after a child had been diagnosed and placed in a BD classroom. Retention of children with handicapping conditions such as a behavior disorder seems to be redundant and is certainly a last resort used only if other available intervention strategies fail. With BD students (as compared to mentally disabled or learning disabled students) it seems more likely that retention may become a punitive intervention rather than an instructional one if, for example, a student is not promoted as a result of misbehavior rather than academic deficiency. These data, however, suggest otherwise. The trend toward larger proportions of retained students in the SCIN programs and the lower proportion of retained students with 3.6 weightings implies that the retentions of these BD students were not related to severity of the behavior problem, but were more likely done in an attempt to correct the academic deficits that accompanied the deficits in behavior. Nevertheless, one must consider the impact of the widespread use of retention on the self-concepts of these students who often possess low self-esteem as part of their behavioral disorder. These data provide evidence that

many educators consider the practice of retention a viable alternative intervention for troubled students. Whether educational benefits accrue to these students as a result of the retentions should continue to be carefully examined.

The intellectual data indicate that Iowa BD students are slightly below the national population mean for general intellectual functioning. Also, the range of intellectual functioning for this group of BD students seems to be in line with other studies examining the intellectual capacity of students with behavior disorders (Graubard, 1964; Motto & Wilkins, 1968; Rubin & Balow, 1978; Bower, 1982). The conclusion that BD youngsters tend to have lower-than-average IQs compared to their normal peers (Hardman, Drew & Egan, 1987; Kauffman, 1985) is supported when the mean of Iowa students is taken into account. Reschly, Grimes, & Ross-Reynolds (1981) reported a Wechsler Full Scale mean of 110 for a randomly selected sample of Iowa students. Higher means on achievement and college aptitude measures also have been reported for Iowa students.

The relationship of a student's intellectual functioning to his/her behavioral disorder is an important one with some researchers claiming a central role for intelligence as a predictor of the future academic and social achievement of BD children (Hardman, Drew, & Egan, 1987; Kauffman, 1985), while others (Kauffman, Cullinan, & Epstein, 1987) have failed to find a relationship between IQ and type of behavioral disorder (e.g., conduct disorder, socialized delinquency, personality problem, inadequacy-immaturity).

If such a relationship does exist, one would expect differences in intelligence between students with different degrees of severity of behavioral disorder. Such differences were found in this study. However, the observed

differences in IQ as a function of weighting and program model, while statistically significant, do not represent major differences in a practical or clinical sense, in contrast to the conclusions of Hardman et al., (1987) that children with severe behavior disorders tend to have IQs that fall within the retarded range of functioning. The male/female differences, also, were significant. If this difference reflects a true population difference rather than a sampling artifact, then it would appear that female BD students in Iowa tend to be slightly lower in intelligence than their male counterparts. It is difficult to know to what to attribute this difference without additional information. One possible explanation is that used to explain the differential overrepresentation of males. Namely, that because of socialization practices females tend to exhibit more withdrawn and anxious behavioral disorders and are thus more easily overlooked by teachers and those who make referrals. If they are indeed overlooked more often, then those females that have been identified (at all weighting levels) might be manifesting more serious and debilitating emotional behavioral disorders that would interfere with the expression of their intellectual abilities on measurement tasks. However, this hypothesis is contradicted by the findings of the current study which did not show higher percentages of females in programs for the more severely disordered. Obviously more study is needed to identify the mechanisms involved.

Finally, with respect to academic achievement characteristics of the students it had been fully expected that the more severely disordered students would demonstrate greater academic deficits than the mildly disordered students. Such was not the case. It appears that academic underachievement was not a central factor in determining the restrictiveness of the student's

disability weighting designation and that progressively worse behavioral disorders did not necessarily result in greater academic disruption and subsequent learning deficits. The relative strength of the academic standing of these students seemed to be in agreement with data from the Kauffman, Cullinan, and Epstein (1987) study where 30% of those students served by BD programs were judged to be performing at or above grade level in core academic subjects. These data further support the contention of Wood (1985) that many BD students currently served through special education could be excluded because they do not exhibit associated academic learning problems. Wood (1985) argues that even through these students present difficult management problems for school personnel, they may not belong under the province of special education.

Teacher Characteristics

Sex and Race

The most striking results that emerged from the teacher characteristics data were those that described the sex and racial composition of teachers of Iowa BD students. A clear discrepancy existed that effectively resulted in a mismatch between teachers and students in both of these areas, with the sex composition discrepancy much more pronounced. For Iowa BD students it was very likely that male students had a female teacher and that black students had a white teacher. These differences between the sex and racial composition of teachers and students by no means automatically indicate that these students were receiving poor service. They do suggest, however, that male students (white and

black) who would have benefited from a same-sex model and black students who would have benefited from a same-race model were not as effectively served as they might have been.

Training

When training was examined on the basis of highest degree earned, the Iowa BD teachers demonstrated a very definite trend toward advanced degree status. The abundance of advanced degrees was a positive finding that demonstrated a commitment to advanced training on the part of these teachers. This advanced training is viewed as contributing to a high quality of educational service for these students.

The data on certification also speak to training, but from a slightly different tack. Rather than examining training by level, certification is an indication of the nature of the content of the training. Here the picture became somewhat mixed and difficult to conclusively interpret. The predominant certification category held by Iowa BD teachers was multicategorical. Multicategorical certification is one that provides training in more than one disability area and allows the holder to instruct students of different disability conditions in one classroom. Multicategorical certification does not necessarily require intense training in the area of behavioral disorders and it was thus not possible to determine how many of the multicategorical teachers in this sample actually possessed BD training. This is a potential training shortcoming that could not be conclusively determined because of the limitations of the data collection instrument.

Program Characteristics

The program characteristics were examined in order to gain information about some aspects of both the availability and quality of the Iowa BD programs, although the availability also indicates quality in some cases.

Official Description, Status, and Size

The vast majority of Iowa BD students were being served in a program with the official description of "behavior disorder" or "multicategorical." Again, the nature of multicategorical programs can be potentially nebulous, but for mildly disordered students does represent an administratively appropriate type of service. The BD students enrolled in non-BD programs should be a reflection of the frequency of use of the "rule exception" procedure (Iowa Rules of Special Education, 1985) whereby students may be served in programs other than that for which they have been diagnosed. This procedure is usually considered only in cases of extenuating circumstances or program unavailability and requires the approval of the director of special education. Program unavailability is a potentially frequent occurrence in a rural state such as Iowa where there are approximately 430 school districts serving a total student population of approximately 400,000. Florida, for example, has only 99 school districts even though their total student population is much larger. This large number of small school districts effectively inhibits many of these districts from providing a wide array of special services. With a 1% prevalence rate for behavioral disorders in general, the additional restrictions created by a student who possesses a severe disorder and who requires placement in an age-appropriate class means that the "catchment" population needed to support

these programs must be rather large. A large "catchment" population in many parts of Iowa includes a very large geographic area and multiple school districts. The low percentage (4%) of such cross-program placements in this sample seems to indicate that most students were being served in a program congruent with their disability classification. Similarly, the low percentage (9%) of students served in part-time programs seems to speak well of the availability of programs for these youngsters, especially in light of the rural nature of many of Iowa's school districts and the low student population of some of those districts.

The size of the Iowa BD programs also provided a clear indication of appropriate structure as there was a clear and statistically significant trend for decreasing size as a function of increasing severity. For the RTP, SCIN, and SCC program models the mean class size was also within the guidelines set forth in the Iowa Rules of Special Education (1985). This was not the case for the SC programs where the mean class size was greater than that (5) recommended by the Iowa "Rules" for the education of severely handicapped BD students. Such practice is not in violation of the "Rules" provided that additional educational aide personnel are employed in those SC programs with 6-9 students. It does seem to indicate that these programs for the severely handicapped were being fully used.

Enrolled vs. Recommended Program

Most of the students in the sample were enrolled in the type of program that had been recommended for them, with only 8% enrolled in a program different than that recommended. There were not systematic trends that appeared as approximately one-half of these students were in a program more

restrictive than recommended while approximately one-half were in a program less restrictive than recommended. This 8% figure seems to reflect acceptable service provision in a rural state where recommended programs may not always be available.

Instructional Time Loss

The instructional time loss program component also provides an indication of program availability and quality. The educational/treatment process of BD students is unique in that the environment that is often most likely to provoke a negative behavioral response is the same environment where education must occur and where treatment is often attempted. The conditions of the school setting often place demands upon the youngster that settings outside of school do not. For many youngsters, the essence of their disorder is how they respond to these demands to attend to task, complete required work, follow prescribed rules, and interact with others in a socially acceptable manner. One indicator of program effectiveness is the amount of instructional time a student receives. However, with some BD students, less instructional time may be a necessary adjustment that facilitates the learning process by reducing environmental demands on the student. Information regarding the amount of time lost due to busing arrangements and/or behavioral considerations was obtained for students in this study.

The proportion (14%) of students who lost time due to busing arrangements and/or behavioral concerns was quite small, given that the rural composition of much of this sample would prohibit many school districts from being able to financially support a BD program. Also, similar data collected for

mild mentally disabled students in Iowa resulted in a much larger (29%) proportion of students who lost time due to busing (Reschly, Robinson, Volmer, & Wilson, 1988d). Direct comparisons are not entirely possible since the MD data did not include severely handicapped students; however those portions of the samples that do overlap show marked disparities. Mildly MD students experience reductions of their school day much more frequently than mild BD students. At the more severe level (3.6) 21% of students with shortened days were due to the student's behavioral treatment program. That leaves a remainder of only 22% of the total group of 3.6 students who lost instructional time simply because of busing. Even though this represents a substantial number of students, it is doubtful if much improvement could be made given the population density of Iowa.

Age Range

The age range in classrooms for the behaviorally disordered is important because of the developmental nature of behavior and the necessity of age-appropriate expectations, interventions, and behavioral models. The statistically significant trend for more restrictive age ranges in more restrictive programs is seen as an indicator of good quality programming. Since students only participate in RTPs on a part-time basis, a larger age range can be present while still maintaining an age-appropriate setting. The part-time student is less likely to be with much older or younger students while receiving services. With respect to the other programs, this result indicates a more restricted age range for students in programs with increased severity of disorder and seems to be a characteristic that is indicative of well-structured programs. Wide age

ranges for more severely disordered students could be potentially harmful to the younger students and could effectively function as a hindrance to the effective delivery of service to all of the students.

Program-Characteristics Conclusions

The characteristics of Iowa BD programs seem to generally indicate that the availability and (to some degree) the quality of these programs were at reasonably good levels. When one takes into account the rural nature of much of the state, these program indicators then might have been as positive as could reasonably have been expected. However, these programmatic indicators were also very much structural, quantitative, and administrative in nature. In that sense they were similar to the "numerical" indicators that were lamented by Grosenick, George, and George (1987) as being a very one-dimensional, restrictive set of standards. The entire field of special education has made "numerical" progress with respect to services provided. Iowa does not appear to be an exception. More telling indicators of program and service quality might include information directed at determining what happens within these programs. The latter portions of this study attempted to address this issue.

Evaluation

The portion of the study that examined evaluation procedures attempted to answer questions regarding both the nature of the evaluation procedures and the types of behavioral, social/emotional, or academic deficits identified that

were contributing to the behavioral disorder. In addition, information was gathered aimed at ascertaining the frequency and types of prereferral interventions that were used.

Prereferral Intervention

In light of the recognized importance and effectiveness of prereferral intervention with BD students (Graden, Casey, & Bonstrom, 1985a; Graden, Casey, & Christenson, 1985b) and the explicit inclusion of these procedures in the pupil identification process (Iowa Rules of Special Education, 1985), the level of documentation of prereferral intervention reported here leaves much to be desired. Although 14% of the potential respondents omitted this item, only 72% indicated the presence of documented attempts and it is believed that omitted responses were more likely to indicate the absence of the information requested rather than the presence of the information, but failure to report it. The data from this project cannot tell with certainty whether the results represent a lack of intervention attempts or simply a lack of documentation of those attempts. Undoubtedly there was some of both. In either case the procedures and requirements are specified quite clearly in the Iowa Rules of Special Education and both intervention and documentation are required. Even without the requirement from the "Rules," failure to intervene and document does not represent best practice in evaluation and treatment of BD students. Additionally, that only 80% of the cases examined contained a setting analysis (within which prereferral attempts are documented) is too low from both a procedural and a best practices standard. Again, one cannot be sure if the setting analysis was performed, but not documented as such or whether it was simply

omitted. The author tends to favor the latter explanation since it is relatively painless to label the setting analysis clearly in writing if it has indeed been completed and it does not seem likely that such a procedure would be completed without explicit reflection of it in the report.

Iowa Assessment Model Procedures

Inclusion of mandated components. That only 80% of the cases examined contained a setting analysis, 80% of the cases contained individual trait data, and 92% contained pupil behavioral data is too low from both a procedural and a best practices standard, especially in the areas of setting analysis and individual trait data. Again, it could not be ascertained with certainty whether the assessment of these areas was performed, but not documented or whether it was simply omitted. The latter explanation seems more likely since it is relatively painless to label these areas in writing if indeed they have been completed. It does not seem likely that the procedures would be completed without explicit reflection of them in the report. Such emphasis on documentation may seem tangential to the evaluation process, but in fact one of the weakest areas in courtroom defenses by state departments of education and local education agencies in placement bias litigation has been the documentation available to substantiate the decisions made (Reschly, 1984). Simply fulfilling the spirit and intent of the procedures is not sufficient. Records to substantiate must also be present.

Functional nature of assessment. The Iowa Assessment Model in Behavioral Disorders: A Training Manual (Wood, Smith, & Grimes, 1985) not only specifies the areas of assessment to be addressed, but also provides guidelines regarding the methods that might be used to complete these

assessments. These assessment guidelines are intended to assist the professional in developing assessment procedures that not only lead to sound decisions about the student's education, but also lead to a clear and accurate description of the behaviors of concern. It is believed that clarity and accuracy in the specification of behaviors facilitates the subsequent development of treatment and intervention. With this in mind, it is surprising that only 39% of the pupil behavior data evaluations reported systematic behavioral observation with specific data and that the specification of the frequency (54%), intensity (40%), and duration (35%) of the problem behavior occurred in a relatively low proportion of cases. Again, these portions of the PBD evaluation are required under the Iowa "Rules" and represent sound practice. One hopes that the specification of frequency, intensity, and duration of the behavior of these students was not simply ignored in these evaluations. A simple failure to document may also have been responsible for a portion of this reported deficit. However, failure to document also has serious implications for the treatment and future evaluation of the child as well as representing less than adequate professional practice.

Quality of Evaluation

The two indicators of evaluation quality (thoroughness and estimated time) provided further information on the nature of assessments performed as part of the classification of Iowa BD students. Again, the overall thoroughness level (71% of students who received all three mandatory evaluation areas) left much to be desired. Also, the more severely disordered students did not necessarily receive more thorough evaluations. This trend was contrary to

intuitive expectations that would conceptualize assessment procedures for severely disordered students to be the most thorough. It seems that in practice more severely disordered students were not given more thorough assessments, perhaps because their disordered behavior was so obvious to everyone involved. In a general sense these data present another piece of evidence indicating that the assessment procedures for these behavior disordered students were often not up to the standards of thoroughness that is expected.

With respect to the evaluation time comparisons the results were mixed. There were generally no differences between the amounts of time expended for evaluations of students with different disorder severities. One would like to think this is an indication that all students were receiving very thorough and comprehensive evaluations irrespective of the severity of their disorder. The differences by type of evaluation were quite clear and presumably occurred because of the differences in the nature of each of these types of evaluations. Three year re-evaluations, as mandated by law, require standardized IQ and achievement testing while other comprehensive evaluations are often performed in response to changes in a student's behavioral or emotional status and usually would be performed in closer chronological proximity to previous comprehensive evaluations. Thus, other comprehensive evaluations might not always require full standardized IQ and achievement testing if this testing had only recently been completed as part of a different and separate evaluation. The time differences observed for pupil behavior data reflect the nature of initial placement and other comprehensive evaluations as being in response to specific concerns about a student while three year re-evaluations are done as a matter of routine. A routine evaluation often may not be perceived as requiring

the same degree of behavioral assessment when compared with an evaluation undertaken in response to observed problems with a student's school functioning. This explanation also accounts for the observed differences in the difference time comparisons. More time was spent on testing relative to behavioral assessment for three year re-evaluations than for either initial placement evaluations or other comprehensive evaluations. Apparently, the different nature of these types of evaluation had no effect on the time expended for either setting analysis or individual trait data assessment.

Procedural Conclusions

These evaluation data are generally quite striking in their portrayal of the practices used to evaluate and identify these students. It appears that the procedures prescribed by the Iowa Rules of Special Education (1985) either were not followed by a substantial number of special education personnel involved in evaluations of BD students, or were followed but not explicated as such in the evaluation reports. In either case the expected procedures are that the evaluation guidelines be followed and reported so that required components of the evaluation are clearly identified and addressed. Failure of special education professionals to adhere to procedural guidelines may have been the result of: (1) differences in training and orientation among professionals, (2) reluctance of some professionals to adapt to changes in the guidelines, and (3) professional autonomy and independence that led to a disregard for procedures intended to guide professional practice. It would have been informative to know how many

professionals were cognizant of the procedures, but chose to ignore them as opposed to those professionals who simply did not know the procedures and needed further training.

Identified Deficits

The primary point that needs to be made with respect to this data involves the large percentage of academic behavioral deficits for 1.7 weighted students. These behaviors were more than twice as likely to be identified as deficits for 1.7 students than were any of the other types of behavior. This difference was great enough that it is accurate to state that the primary behavioral characteristic of the 1.7 BD students in this sample was their failure to remain on task and complete assignments. Such a statement leads one to seriously question the degree of "disorder" that is present for a student who does not complete assignments. This is definitely an example of behavior that is much more disturbing to others than it is disturbed. Whether it is necessary or appropriate to classify a student as behavior disordered because of such deficits is questionable. In those cases where other concurrent deficits were also present, academic deficits may indeed have been indicative of a true disorder. However, one wonders how many students who were primarily deficient in academic behaviors would have been classified and placed if the official term in Iowa was "emotionally disturbed." A further consideration is the relative amenability of academic completion to behavior interventions in regular education. One wonders about the extent to which appropriate behavioral interventions were designed, implemented, monitored, and evaluated before these students were

classified as BD and placed in a 1.7 program. Somehow, even at the 1.7 level, diagnosing an emotional disturbance for failure to complete assignments seems inappropriately severe.

Individualized Education Program

The information obtained that examined the individualized education program (IEP) goals and objectives was gathered for two purposes. One, to simply examine the nature of BD students' IEPs so that large, general comparisons could be made to the identified deficits of these students and two, to examine the congruence between the identified deficits and IEP goals and objectives for individual students in the study. The reader is again reminded that the analysis of these data included a coding procedure with overall interrater reliability of .87 and is cautioned to consider this reliability in making interpretive assumptions.

The overall pattern of IEP goals and objectives was similar in many ways to the overall pattern of identified deficits. However, some important differences were also present. Most striking of these were (1) the differences in the magnitudes of the frequencies that resulted in a clear trend for more IEP goals and objectives than identified deficits in any given category, and (2) the differences in the rank order of deficit and goal or objective categories for the overall sample. These differences suggest that some IEP goals and objectives were written in the absence of a deficit identified in the evaluation and that different areas were addressed by those persons who wrote the IEP than by those persons who conducted the evaluation. These differences were especially

apparent for core academic goals where, for many students, core academic goals may have been made part of the IEP as a matter of routine, since the evaluation did not indicate that an academic deficit existed.

Identified Deficit/IEP Congruence

The congruence or agreement levels between identified deficits and IEP goals and objectives for individual students were generally lower than that considered to be acceptable by the author. In general this appears to indicate that the diagnostic-intervention link is not strong for BD student assessment and intervention. In short, the connection of the diagnostic procedure to the formulation of a treatment plan was not always apparent. Within the congruence data some differences were noted. When identified deficits were used as a starting point, behavioral and academic areas of functioning demonstrated higher levels of agreement than did social/emotional areas. It is possible that this disparity reflected increased difficulty in providing social/emotional intervention so that even when such deficits had been identified, they were not always targeted for intervention in the IEP. By contrast, the behavioral and academic deficits were probably easier for professionals to provide intervention and were thus less frequently omitted in the IEP when they had been identified in the evaluation as needing attention. When the IEP was used as a starting point for calculating agreement there was a steady decreasing trend with the academic area showing the highest agreement followed by behavioral and social/emotional, in descending order. That social/emotional was again lowest seems to suggest that goals for intervention in this area were written into the IEP, but they simply did not correspond to the

evaluation data. Again, since this is a difficult area in which to intervene, the areas that were identified for intervention in the IEP may be those areas in which intervention was most practical, not necessarily those areas that were identified through the evaluation.

Evaluation/IEP Congruence Conclusions

These low levels of agreement do not, in and of themselves, indicate that these BD students were receiving inadequate treatment. Obviously there are occasions when a teacher will add goals to an IEP as a result of interaction with the student after completion of the evaluation. Similarly, all deficits identified through the evaluative process cannot necessarily be treated effectively through the school program and will thus not be included in the IEP goals. However, these agreement percentages were low enough to cast doubt on the validity of the process that is purported to occur when these students were evaluated and treated in BD programs. This project is not the first to document incongruence between evaluation and IEP information (c.f. Fiedler & Knight, 1986; Smith & Simpson, 1989), although these data contained higher levels of congruence than the Fiedler and Knight (1986) study reported. Conclusions generated from these data must be tempered by the less than perfect reliability coefficients and the unknown veracity of the data collection process as it occurred in the field. However, the diagnostic-intervention process remains suspect. The types of intervention provided to students often did not have a direct relationship to the diagnostic process information. When one considers the amount of time, the number of highly trained personnel, and the large sums of money that were expended and involved with this process, these data demonstrating a lack of

congruence become a sad commentary. If the process has the potential to work effectively, then the necessary adjustments might be made to make it work. If the process is conceptually faulty or practically untenable, it might need to be revised or replaced. The author does not believe the process to be inherently flawed and untenable, but agrees with Fielder and Knight (1986) that steps could be easily taken to improve it. Their recommendations include more direct interaction between evaluation personnel and teachers, more extensive and intensive follow-up by evaluation staff in the IEP process to insure that their recommendations are included as goals for treatment, and a self-monitoring of the entire process using congruence measures. Evaluation responsibilities should have a broad base that includes making sure that the IEP is representative of the evaluative/diagnostic data.

Curriculum and Intervention

Philosophy

The most striking result from this data was the small overall proportion of districts that had a uniform, written philosophy to guide their BD programs. This study's findings in this area were quite different from Grosenick et al. (1987) who reported that 83% of the districts they sampled nationally had a prevailing philosophical orientation for their severe BD programs. Even though proportions increased in this study for the more restrictive programs, at the most restrictive level (SC) the proportion that had a district-wide philosophy was only 63%. It appears that many of the BD programs in Iowa, especially those

for mildly disordered students, need to attend to the issue of a guiding philosophy for their programs as a means to promote coherence and effective BD education and treatment.

Classroom Components

The classroom component data demonstrated mostly expected results, especially with respect to the overall frequency of inclusion of general classroom management, individual student management, social skills instruction, and crisis intervention. Ideally, one would prefer that all programs contain all of these components. Realistically, that they did not is not surprising. Three noteworthy shortcomings were apparent when the frequencies were examined by program model. First, the proportion of less restrictive programs that did not include a social skills instruction component was quite large. The literature is replete with evidence of the importance of social skill training for special education students (Grehsam, 1982; 1981). This training should be available to students in all program models, regardless of degree of restrictiveness of the classroom. Second, the proportion of more restrictive programs that did not include a crisis management component was also large. It seems that such a lack of formalized, regular crisis management procedures could only detract from programming effectiveness for the more severely disordered students. Third, that the inclusion of an individual counseling component was low within all program models was troubling, but especially so for the SCC and SC models. The small proportion of SCC and SC programs that included individual counseling components as a regular part of the program must indicate difficulty in procuring these services for BD programs on a regular basis.

If these moderate to severely disordered students were not able to have individual counseling available to them as a treatment program component then it seems very likely that some students' needs were not met. Whether this infrequent individual counseling availability was a result of choice or a function of personnel limitations would have been interesting to know, but the author cannot imagine any SCC or SC programs that could effectively function without an individual counseling component.

Curriculum Emphasis

The ratings of curriculum emphasis for the students provided a means by which to examine the nature of the educational programming provided to these BD students within different classrooms across the state. These ratings were most useful as a means for the comparison of programming difference as a function of demographic and program variables. Special attention was given to the examination of curriculum differences by student severity weighting and program model in an effort to characterize the salient dimensions that differentiated programs and students as a function of the severity of the disorder or the restrictiveness of the program.

Student sex and race. That only one significant difference appeared as a function of student sex and no differences appeared as a function of student race clearly suggests that systematic curriculum programming differences for these two groups of students were essentially nonexistent. The difference in curriculum emphasis that did occur indicated that behavioral curriculum was more highly emphasized with males than females. This differences may have been an indicator of more stereotypical, acting-out, externalizing behavior for

the males in the sample. However, if this were the case one might also have expected to see more emotional curriculum emphasis with females. Since this did not occur one can only surmise the difference to have been a result of different severity levels as proportionally more males were enrolled in the more restrictive programs for the severely disordered. These more severely disordered students required more intensive, strict behavioral intervention.

Program status. That more curriculum emphasis was reported for students in full-time BD programs in 5 of the 10 curriculum areas suggests that systematic differences were present between these two types of programs. One explanation of these difference might be that full-time BD programs were able to provide a wider range of services to their students and thus were able to emphasize some of the more peripheral curriculum areas. Whereas part-time programs might only have attended to the student's basic behavioral and academic needs because of time and staff limitations, full-time programs were able to more fully address a wider variety of needs with a systematic, inclusive curriculum that addressed some of these secondary areas of BD instruction.

Severity weighting and program model. The student severity weighting and program model variables are both related to the severity of the student's disorder. That few discernable differences were apparent between the areas of curriculum emphasis for 2.2 vs. 3.6 students or for the two levels of more restrictive programs (SCC, SC) raises the question of whether more restrictive BD programming was qualitatively different from the less restrictive type of whether it was simply more of the same. The distinctions between the services provided in different program models and to students with different severity weightings were negligible in many cases. Even though students spent more

minutes per day in an SC program than in an SCC program (for example), what was being done in those programs with curriculum areas often appeared to be essentially the same.

The multivariate discriminant analysis results provide a very nice graphic illustration of the curriculum emphasis differences, both by severity weighting and program model. These graphics make it glaringly apparent that any systematic distinctions made between curricular practices at more restrictive levels of BD programming are quite artificial and are a function of theory rather than actual practice.

Diagnostic cluster. The multivariate analysis of curriculum differences by the student's diagnostic cluster provided evidence that curriculum differences were present between students with different types of disorders. This analysis also provided a validity check for the curriculum measures themselves, separate from the variables related solely to severity level. Curriculum differences between the types of students were quite clear for the disruptive, withdrawn, and autistic types. Those students with disordered thought processes were more difficult to distinguish, suggesting that they share more treatment characteristics with each of the other three groups.

Intervention Strategies

The examination of the differential use of intervention strategies with BD students was performed in the same manner and for much the same reason as the examination of curricular differences. The ratings of intervention strategies permitted an analysis of programming differences from a slightly different

perspective and allowed for the attainment of convergent validity with respect to conclusions regarding the nature of differential programming.

Student sex and race. As with curriculum emphasis, no differences were apparent for intervention use with students of different racial categories. This provides clear additional support for a lack of discriminatory practices in Iowa BD education. Different from the curriculum results were the findings that five intervention strategies were more frequently used with males than with female students. In the cases of aversive consequences, physical restraint, and time out/quiet room one might hypothesize the more frequent use with males to be a function of stereotypical sex-role behaviors which are outer-directed and require these types of intervention. However, the individual and group counseling differences are more difficult to explain. It may be that the outer directedness of the males' behavior led teachers to perceive it as more severe so that counseling interventions were a more frequent result.

Severity weighting and program model. The results of the ratings of intervention use by severity weighting and program model were similar to those examining curricular differences. Again, it seems apparent that assumptions about qualitative differences in programming for more severely disordered students might be unfounded. In this case the frequency with which various intervention strategies were employed with students had limited relationship to the severity level of their disability weighting. This lack of difference heavily suggests that the students in the different program models sampled could be differentiated by the amount of time students spent in that program, but with the exception of RTP students, could often not be differentiated by the frequency with which various types of intervention

strategies were used in their educational and treatment programs. The multivariate graphics indicate that the separation of 2.2 and 3.6 students by intervention use was slightly more pronounced than it was for curriculum emphasis and that a third discriminant function was present (but not graphed) that attempted to separate the SCC and SC students by intervention use. However, these differences were not strong enough to alter the general conclusion that empirical differences between the programming for more severely disordered students were not clearly present.

Diagnostic cluster. Multivariate analysis of the use of intervention strategies with students of different diagnostic cluster type provided empirical evidence that the differential treatment of students by cluster was occurring. Each of the types of students was clearly separated from the others on at least one dimension. Again, this provided a validity check for the intervention use ratings, separate from variables related to severity level.

Curriculum and Intervention Conclusions

The data presented here regarding curriculum emphasis and intervention strategies with BD students of different disability weights and in different program models speak to a fundamental issue in special education - whether special education is really qualitatively different from regular education. This issue has been extensively debated and written about and some critics have suggested that special education is only special in terms of the quantity and pace of work expected of the students (see Wang, Reynolds, and Walberg, 1987). In fact, those critics have concluded that the same instructional

principles apply to both regular and special education and few, if any, unique methods have ever been established.

This study did not compare regular and special education. One of the primary objectives, however, was the comparison of different levels of service within special education, specifically, BD programs. The results indicate that clear qualitative distinctions between more and less restrictive programs probably do not exist in much of the Iowa BD programming, with the exception of RTP programs. They appear to be clearly providing a different service than the other levels of programming.

This study is not the first to look for evidence of systematic differences between levels of programming without success (c.f. Zabel, Peterson, & Smith, 1988; Reschly, Robinson, Volmer, & Wilson, 1988d). The lack of differentiation between SCC and SC (and to some degree SCIN) programs seems to indicate that these program options are primarily distinguishable by the degree to which they keep a student out of the mainstream and prevent him/her from disturbing the regular education setting. Much of what happens to students while they are in these programs appears to be relatively indistinguishable. The danger is that the tolerance level of the regular education setting and not the possible benefit from special service is what promotes and influences special class BD placement decisions.

Support Service

The support service data provided information regarding the need, provision, effectiveness, and providers of seven separate support services in Iowa BD classrooms. The support services examined included those provided

directly to students as well as those services provided indirectly through consultation with teachers and/or parents.

Need and Provision of Support Services

These ratings revealed an expected difference in the need for support services between RTP and other program models; one would expect RTP students to have fewer support service needs than the students in more restrictive programs. The few differences between SCIN and more restrictive models and the complete lack of difference between SCC and SC models was surprising, but consistent with some of the other data obtained in this study. It seems that the support service needs and the degree to which these needs are met do not differ for students in these more restrictive program models.

The different score data suggest that teacher services, with only one discrepancy over 0.50, were most adequately provided. Student services in the areas of group and individual counseling were perceived by teachers as not meeting the students' needs in many cases, while services to parents were rated as being severely below what was needed to adequately meet that need, as perceived by teachers. This perceived lack of service to parents was especially strong in the SCIN, SCC, and SC programs where the magnitude of the discrepancy values were greater than 1.00. Parent services seems to be an area where additional service needs to be provided.

Providers of Support Services

These results on providers of support services suggest that the bulk of support services are either provided by more than one support staff person or

are provided by a local education agency (LEA) professional rather than an AEA person. The exception to this finding occurred with respect to teacher services, which were clearly provided most frequently by the special education consultant. Other trends indicate that social workers tend to work directly with students only slightly more often than psychologists, who are both more often directly involved with students than are consultants. The picture of support service that emerges from the data on providers seems to highlight the multidisciplinary team as a service provider to BD programs. The teachers who responded to these items often indicated that there was not a clear distinction between providers, but that many of the services were provided by a variety of persons who shared in the support of the program as their training and expertise allowed. These persons also included LEA staff members such as the school counselors or principals. With students in BD programs it seems that providing effective direct support service to students probably requires that person to be available to the student on a daily basis as counseling is often most effective during the "teachable moment" when the student is involved in a problematic situation. Also, this is obviously even more apparent with crisis intervention services. Thus, the nature of some direct services to BD students requires that they be performed by an LEA rather than AEA person. AEA support staff, who function primarily on an itinerant basis, may often be more effective for consultative rather than direct service functions.

Effectiveness of Support Services

The effectiveness data also highlight the need for increased effort and focus by special education personnel on the provision of support service to BD

students. Effectiveness was generally rated as mediocre and less effective when provided by more than one person, an occurrence that happened quite frequently. The data collection instrument did not contain items that allowed teachers to expand on these ratings by indicating what could have been done to improve the support service they were receiving. This sort of information is the logical follow-up that would help the providers meet the needs of their constituents. In light of the differences between teachers and students it seems that this information might be much more easily and accurately gathered on an individual, local basis.

Integration/Exit Procedures

The overall rate for which integration and exit procedures were in place was clearly below the level necessary for best practice. These results also seem to suggest that BD educators perceived a greater need for systematic specification of integration/exit procedures with more severely disordered students and operated more informally with the integration/exit process with mildly disordered students. This result was not entirely unexpected since the process whereby a severely disordered student is integrated or prepared for exit from a BD program is a challenging one that has potentially more pitfalls than the same process with a mildly disordered student. One does wonder, however, why BD program personnel were more apt to develop specified integration/exit procedures in response to these potential difficulties with severe students even though exit and integration are more realistic possibilities for students in less restrictive (RTP, SCIN, SCC) programs. While the differences in specified procedures between program models were not surprising, the overall low

magnitude of the frequencies for which these procedures were specified was disappointing. Again, it seems that much more time and effort is put into the procedures for evaluation and placement into programs than for evaluation and exit from programs. The results presented here indicate that integration/exit procedures are areas to which too many BD programs have failed to attend.

Limitations of the Study

There are several factors that may limit the generalizability of the results of this study. The foremost of these is the general limitation inherent in any survey research. Much work was done in the early stages of the study to provide those involved with data collection the opportunity to consult with the researcher so that questions regarding the data collection mechanics or the data collection instrument could be addressed. Even with this careful planning and consultation there was no way to absolutely monitor the veracity of the data collection process as it occurred in the field. While there is no reason to believe that the data was collected inaccurately, the possibility remains. Since the data collection instrument was quite lengthy and the collectors were searching through student files for information, fatigue and/or carelessness may have had an effect on the process.

The second limiting factor was the lower return rate for two of the Area Education Agencies (AEA), 6 and 14. The rates of return for these two agencies were 30% and 6%, respectively. These rates almost certainly indicate the absence of a representative sample for AEA 14 and cast doubt on the representativeness of the sample from AEA 6. Since these are two of the smaller AEAs, the effect of

these low return rates on the results of the entire sample were very minimal. Any interpretations made solely for these AEAs, however, would not be recommended.

Finally, the substitution of some of the students who were selected for study was also a potential bias on the results of the study. The data collectors were instructed to substitute only a student of the same sex and program model and to do so with some type of random procedure (e.g., selecting the first, third, or fifth students on the class roster that were of the same sex as the target student). While there is not evidence that these substitutions had any biasing effects on the results, even with the precautions that were taken, such effects cannot be ruled out with certainty. The biasing effects, if any, on the overall sample are probably minimal. The potential biases of the results from AEAs 7 and 11 (where substitutions occurred) remains open to speculation.

Implications

The results of this study have implications for the treatment and education of BD students in Iowa and elsewhere. Some of the primary implications are highlighted and discussed in the following section.

Two of the clearest results of this study were those documenting the shortcomings of the evaluation procedures and the incongruence of the evaluation data with the student's IEP. First, the lack of attention given to the required evaluation parameters (setting analysis, pupil behavior data, individual trait data) in some cases reflects the possibility of much disjointedness in the foundation of BD education - systematic and sound diagnostic and identification procedures. Second, the evaluation -- IEP process

continues to be tenuous at best and the incongruence between these two casts doubt on that which special education has always claimed as one of its primary tools - individualized service tailored to the student's needs. It seems obvious that these two facets of BD education are closely related and it is believed that the shortcomings in each area uncovered in this study are also related to each other. The procedural guidelines were not developed simply as a bureaucratic exercise, but were developed so that assessment would be useful, unbiased, and lead to quality decision making. The notion seems to indicate that assessment procedures need to be purposeful and functional, i.e., tailored to provide problem areas and generating information that can be translated into intervention rather than perfunctory in the sense that the information is only aimed at making a decision regarding placement in a special class (Lawler, 1984). Thus, one of the primary implications of this study is that additional work needs to be done in the form of continuing education for professionals performing assessments for BD students. Some of this work is currently underway in the State of Iowa through the implementation of the Renewed Service Delivery System (RSDS, Iowa Department of Education, Bureau of Special Education, 1988). RSDS has as its goals the modification and upgrading of three aspects of special education that were found to be somewhat subpar in the current study. These three aspects include; (1) a purposeful, problem-solving approach to assessment rather than one that is useful only for making placement decisions; (2) the enhancement of the link between assessment and intervention; and (3) implementation of improved methods and specified activities for progress monitoring and determination of treatment outcomes, particularly as they relate to the integration and exit of students from special

education classrooms. One possible hindrance to these continuing education efforts is the perception held by school psychologists in Iowa and nationally that they are already well-trained in the area of assessment (Reiher, 1983; Chapman, 1982). The most effective avenue for the training of these skills then probably lies in the graduate programs. These results thus have implications for the school psychology faculty and trainers as well as those practitioners currently in the field. Producing new graduates with philosophies of purposeful assessment will go a long way towards improving the diagnostic-intervention process in the field of BD education and treatment.

The second major implication from this study centers around the weakness of the empirical support for program model and student severity weightings as they are currently being employed. This lack of clear empirical differentiation not only raises questions about the appropriateness of the service received by students, but also the increased fiscal expenditures that accompany more restrictive forms of education. The levels of differentiation by student weighting and program model (as indicated by the multivariate graphics Figures 1, 2, 4 and 5) were actually in reverse proportion to the amounts of money that were differentially expended. That is, the empirical differentiation was greater between 1.7 and 2.2 than between 2.2 and 3.6 even though the fiscal differential was much greater (.5 vs. 1.4) between the 2.2 and 3.6 students. The implications, both educationally and fiscally, are that students and taxpayers might be better served by attempts to empirically define different levels of treatment for BD students. A similar conclusion was also stated by Reschly et al. (1988d) with respect to mild mental disabilities (MD) students. Thus it appears that much of the special education service delivery is in need of renovation.

Finally, this study called attention to a segment of the special education population that were sorely underserved - parents. A final implication from the study is that efforts need to be focused on providing consultative services to the parents of behaviorally disordered students. It seems obvious that intervention with parents would be a very effective means through which effective treatment could be enhanced. It also was apparent, however, that services to parents were not provided at the level desired by the teachers of these students, a finding that has also been demonstrated for mild MD students (Peschly et al. 1988d). It is very likely that the demands of heavy caseloads extracted the heaviest toll on parent services since it requires more effort to provide these services. The expenditure of that effort could potentially result in significant dividends for students. Hopefully, the effects of Renewed Service Delivery will also result in an enhancement of the services provided to the parents as well as the BD students themselves.

References

- American Psychiatric Association. (1980). *Diagnostic and statistical manual of mental disorders* (3rd ed.). Washington, DC: Author.
- Blackhurst, A. E., Bott, D. A., & Cross, D. P. (1987). Noncategorical special education personnel preparation. In M. C. Wang, M. C. Reynolds, & H. J. Walberg (Eds.), Handbook of special education: Research and practice (Vol. 1). Oxford, England: Pergamon Press.
- Board of Education of the Hendrick Hudson Central School District v. Rowley et al. (1982). 73 L. Ed 2d 690, 120 S. Ct. 3034.
- Bower, E. M. (1982). Defining emotional disturbance: Public policy and research. Psychology in the Schools, 19, 55-60.
- Chapman, C. (1982). School psychologist's evaluations of graduate education programs and continuing education needs. Unpublished specialist thesis, Iowa State University, Ames.
- Dudley-Marling, C. (1985). Perceptions of the usefulness of the IEP by teachers of learning disabilities and emotionally disturbed children. Psychology in the Schools, 22, 65-67.
- Epps, S., & Tindal, G. (1987). The effectiveness of differential programming in serving students with mild handicaps: Placement options and instructional programming. In M. C. Wang, M. C. Reynolds, & H. J. Walberg (Eds.), Handbook of special education: Research and practice (Vol. 1). Oxford, England: Pergamon Press.
- Executive Committee of the Council for Children with Behavioral Disorders. (1987). Position paper on definition and identification of students with behavioral disorders. Behavioral Disorders, 12, 9-19.
- Fiedler, J. F., & Knight, R. R. (1986). Congruence between assessed needs and IEP goals of identified behaviorally disabled students. Behavioral Disorders, 12, 22-27.
- Graden, J. L., Casey, A., & Bonstrom, O. (1985a). Implementing a prereferral intervention system: Part II. The data. Exceptional Children, 51, 487-496.

- Graden, J. L., Casey, A. & Christenson, S. L. (1985b). Implementing a prereferral intervention system: Part I. The model. Exceptional Children, 51, 377-384.
- Graubard, P. S. (1964). The extent of academic retardation in a residential treatment center. Journal of Educational Research, 58, 78-80.
- Gresham, F. (1981). Social skills training with handicapped children: A review. Review of Educational Research, 51, 139-176.
- Gresham, F. M. (1982). Misguided mainstreaming: The case for social skills training with handicapped children. Exceptional Children, 48, 422-433.
- Grosenick, J. K., George, M. P., & George, N. L. (1987). A profile of school programs for the behaviorally disordered: Twenty years after Morse, Cutler, and Fink. Behavioral Disorders, 12, 159-168.
- Grosenick, J. K., George, N. L., & George, M. P. (1988). The availability of program descriptions among programs for seriously emotionally disturbed students. Behavioral Disorders, 13, 108-115.
- Grosenick, J. K., & Huntze, S. L. (1983). National needs analysis in behavior disorders: More questions than answers: Review and analysis of programs for behaviorally disordered children and youth. Columbia: University of Missouri-Columbia, Department of Special Education.
- Hardman, M. L., Drew, C. J., & Egan, M. W. (1987). Human exceptionality: Society, school, and family (2nd ed.). Boston: Allyn and Bacon.
- Hawkins, R. P., Fremouw, W. J., & Reitz, A. L. (1981). A model for use in designing or describing evaluations of mental health or educational intervention programs. Behavioral Assessment, 3, 307-324.
- Iowa Department of Education, Bureau of Special Education. (1986). Pre-evaluation activities and special education support personnel. Des Moines, IA: Author.
- Iowa Department of Education, Bureau of Special Education. (1988). Renewed service delivery systems. Des Moines, IA: Author.

- Kauffman, J. M. (1982). Social policy issues in special education and related services for emotionally disturbed children and youth. In M. M. Noel & N. G. Haring (Eds.), Progress of change: Issues in educating the emotionally disturbed. Vol. 1: Identification and program planning (pp. 1-10). Seattle: University of Washington.
- Kauffman, J. M. (1985). Characteristics of children's behavior disorders (3d ed.). Columbus, Ohio: Charles E. Merrill Publishing Co.
- Kauffman, J. M., Beirne-Smith, M., Eichberg, C. G., Hart-Hester, S., McCullough, L., & Williams, R. (1985). Guidelines for describing programs for behaviorally disordered children and youth. B. C. Journal of Special Education, 9, 11-17.
- Kauffman, J. M., Cullinan, D., & Epstein, M. H. (1987). Characteristics of students placed in special programs for the seriously emotionally disturbed. Behavioral Disorders, 12, 175-184.
- Kelly, T. K., Bullock, L. M., & Dykes, M. K. (1977). Behavioral disorders: Teachers' perceptions. Exceptional Children, 43, 316-317.
- Kvaraceus, W. C. (1966). Problems of early identification and prevention of delinquency. In W. W. Wattenberg (Ed.), Social Deviancy Among Youth: Yearbook of the National Society of the Study of Education, 65, Part 1, 189-220.
- Lakin, K. C. (1983). Research-based knowledge and professional practices in special education for emotionally disturbed students. Behavioral Disorders, 8, 128-137.
- Lawler, F. (1984). Functional or purposeful assessments: A critical look at assessment procedures and their outcomes. Paper presented at the Conference on Reevaluation of Psychological Assessment Practices, Ames, IA.
- Leone, P. E. (1988). Rethinking our assumptions about troubled and troubling youth. Behavioral Disorders, 13, 134-136.
- McClure, G., Ferguson, H. B., Boodoosingh, L., Turgay, A., & Stavarakaki, C. (1989). The frequency and severity of psychiatric disorders in special education and psychiatric programs. Behavioral Disorders, 14, 117-126.

- McGinnis, E., Kiraly, J., & Smith, C. R. (1984). The types of data used in identifying public school students as behaviorally disordered. Behavioral Disorders, 9, 239-246.
- Medway, F. J. (1987). Retaining children: Important questions and answers. Paper presented at the 1987 National Association of School Psychologists Annual Convention, New Orleans, LA.
- Miller, L., Epp, J., & McGinnis, E. (1985). Setting analysis. In F. Wood, C. Smith, & J. Grimes (Eds.), The Iowa assessment model in behavioral disorders: A training manual (pp. 61-96). Des Moines, IA: Iowa Department of Public Instruction.
- Minutes of Staff Meeting. (October 21, 1985). Des Moines, IA: Iowa Department of Public Instruction, Special Education Division.
- Morgan, D. P., & Rhode, G. (1983). Teachers' attitudes toward IEPs : A two-year follow-up. Exceptional Children, 50, 64-67.
- Morse, W. C. (1976). Competency in teaching socioemotional impaired. Behavioral Disorders, 1, 83-86.
- Morse, W. C. (1985). The education and treatment of socioemotionally impaired children and youth. Syracuse, NY: Syracuse University Press.
- Morse, W. C., Cutler, R. L., & Fink, A. (1964). Public school classes for the emotionally handicapped: A research analysis. Washington, DC: Council for Exceptional Children.
- Morsink, C. V., Thomas, C. C., & Smith-Davis, J. (1987). Noncategorical special education programs: Process and outcomes. In M. C. Wang, M. C. Reynolds, & H. J. Walberg (Eds.), Handbook of special education: Research and practice (Vol. 1). Oxford, England: Pergamon Press.
- Motto, J. J., & Wilkins, G. S. (1968). Educational achievement of institutionalized emotionally disturbed children. Journal of Educational Research, 61, 218-221.
- National Coalition of Advocates for Students. (1988). Analysis of 1986 U. S. Department of Education, Office of Civil Rights, elementary and secondary school survey. Boston, MA: Author.

- Nevin, A., & Thousand, J. (1987). Avoiding or limiting special education referrals: Changes and challenges. In M. C. Wang, M. C. Reynolds, & H. J. Walberg (Eds.), Handbook of special education: Research and practice (Vol. 1). Oxford, England: Pergamon Press.
- Pre-evaluation Activities and Special Education Support Personnel. (1986). Des Moines, IA: Iowa Department of Education, Bureau of Special Education.
- Redick, R. (1973). Utilization of psychiatric facilities by persons under 18 years of age. Washington, D. C.: U. S. Department of Health Education, and Welfare.
- Reiher, T. C. (1983). School psychologist's evaluation of graduate training and continuing education needs. Unpublished specialist thesis, Iowa State University, Ames.
- Reitz, A. L. (1985a). Comprehensive evaluation of programs for exceptional children: Summary and future directions. Education and Treatment of Children, 8, 357-364.
- Reitz, A. L. (1985b). Thematic issue introduction. Education and Treatment of Children, 8, iv-v.
- Reschly, D. J. (1984). Choices and alternatives for compliance with psychoeducational assessment legal requirements. Paper presented at the Conference on Reevaluation of Psychological Assessment Practices, Ames, IA.
- Reschly, D., Grimes, J., & Ross-Reynolds, J. (1981). State norms for IQ, adaptive behavior, and sociocultural background: Implications for nonbiased assessment. Des Moines, IA: Iowa Department of Public Instruction. Also ERIC ED No. 209 811 or ERIC EC No. 140 315.
- Reschly, D. J., Kicklighter, R., & McKee, P. (1988a). Recent placement litigation, Part I, regular education grouping: Comparison of Marshall (1984, 1985) and Hobson (1967, 1969). School Psychology Review, 17, 9-21.
- Reschly, D. J., Kicklighter, R., & McKee P. (1988b). Recent placement litigation, Part II, minority EMR overrepresentation: Comparison of Larry P. (1979, 1984, 1986) with Marshall (1984, 1985) and S-1 (1986). School Psychology Review, 17, 20-36.

- Reschly, D. J., Kicklighter, R., & McKee P. (1988c). Recent placement litigation, Part III: analysis of differences in Larry P., Marshall, and S-1, and implications for future practices. School Psychology Review, 17, 39-50.
- Reschly, D. J., Robinson, G. A., Volmer, L. M., & Wilson, L. R. (1988d). Iowa mental disabilities research project: Final report and executive summary. Des Moines, IA: Iowa Department of Education.
- Reynolds, M. C. (1962). A framework for considering some issues in special education. Exceptional Children, 28, 367-370.
- Reynolds, M. C., & Birch, J. W. (1982). Teaching exceptional children in all America's schools, (2nd ed.). Reston, Virginia: Council for Exceptional Children.
- Reynolds, M. C., & Lakin, K. C. (1987). Noncategorical special education: Models for research and practice. In M. C. Wang, M. C. Reynolds, & H. J. Walberg (Eds.), Handbook of special education: Research and practice (Vol. 1). Oxford, England: Pergamon Press.
- Rubin, R. A., & Balow, B. (1978). Prevelence of teacher identified behavior problems: A longitudinal study. Exceptional Children, 45, 102-111.
- Rules of Special Education (1985). Des Moines: Department of Public Instruction, Division of Special Education.
- Schenck, S., & Levy, W. (1979). IEPs: The state of the art - 1978. Paper presented at the meeting of the American Educational Research Association, San Francisco, CA. (ERIC Document Reproduction Service No. ED 175 201).
- Smith, C. R., Frank, A. R., & Snider, B. F. (1984). School psychologists' and teachers' perceptions of data used in the identification of behaviorally disordered students. Behavioral Disorders, 10, 27-32.
- Smith, C. R., & Grimes, J. (1985). Behavioral disorders in Iowa: An overview. In F. Wood, C. Smith, & J. Grimes (Eds.), The Iowa assessment model in behavioral disorders: A training manual, 3-17. Des Moines, IA: Iowa Department of Public Instruction.
- Smith, C. R., Wood, F. H., & Grimes, J. (1988). Issues in the identification and placement of behaviorally disordered students. In M. C. Wang, M. C. Reynolds, & H. J. Walberg (Eds.), Handbook of special education: Research and practice (Vol. 2). Oxford, England: Pergamon Press.

- Smith, S. W., & Simpson, R. L. (1989). An analysis of individualized education programs (IEPs) for students with behavioral disorders. Behavioral Disorders, 14, 107-116.
- Sodac, D., Nichols, P., & Gallagher, B. (1985). Pupil behavioral data. In F. Wood, C. Smith, & J. Grimes (Eds.), The Iowa assessment model in behavioral disorders: A training manual (pp. 153-202). Des Moines, IA: Iowa Department of Public Instruction.
- Swan, W. W., Brown, C. L., & Jacob, R. T. (1987). Types of service delivery models used in the reintegration of severely emotionally disturbed/behaviorally disordered students. Behavioral Disorders, 12, 99-103.
- Wang, M. C., Reynolds, M. C., & Walberg, H. J. (Eds.). (1987). Handbook of special education: Research and practice (Vol. 1-3). Oxford, England: Pergamon Press.
- Weissenburger, F., Bielat, B., Gingrich, D., & Jensen, B. (1985). Individual trait data. In F. Wood, C. Smith, & J. Grimes (Eds.), The Iowa assessment model in behavioral disorders: A training manual (pp. 221-261). Des Moines, IA: Iowa Department of Public Instruction.
- Wood, F. H. (1985). Issues in the identification and placement of behaviorally disordered students. Behavioral Disorders, 10, 219-228.
- Wood, F. H., & Smith, C. R. (1985). Assessment of emotionally disturbed/behaviorally disordered students. Diagnostic, 10, 40-51.
- Wood, F. H., Smith, C. R., & Grimes, J. (1985). The Iowa assessment model in behavioral disorders: A training manual. Des Moines, IA: Iowa Department of Public Instruction.
- Yard, G. J. (1977). Definition and interpretation of P. L. 94-142. Behavioral Disorders, 2, 252-254.
- Ysseldyke, J. E. (1987). Classification of handicapped students. In M. C. Wang, M. C. Reynolds, & H. J. Walberg (Eds.), Handbook of special education: Research and practice (Vol 1). Oxford, England: Pergamon Press.

- Zabel, R. H., Peterson, R. L., & Smith, C. R. (1988). Use of time by teachers of behaviorally disordered students: A replication. Behavioral Disorders, 13, 89-97.
- Zabel, R. H., Peterson, R. L., Smith, C. R., & White, M. A. (1982). Availability and usefulness of assessment information for emotionally disabled students. School Psychology Review, 11, 433-437.

Appendix A.
Data Collection Instrument

DIRECTIONS: Please provide the information on the student listed below using school records and the knowledge that you and the teacher have concerning his/her program. Some sections are to be completed by support service team members such as psychologist, social worker, consultant, or teacher; others are to be completed by the teacher.

Part I: TEACHER AND PROGRAM INFORMATION

DIRECTIONS: (To be completed by a member of support services team, psychologist, social worker, consultant, or the teacher.) Please correct any mistakes in the information provided here, and enter the information if it has not been provided.

Student's Home School District _____ Student ID# _____

Program School District _____ AEA # _____

Program School District # _____ Date _____

Program County Name _____ Teacher Name _____

Program County # _____

Student Sex: M F

Teacher Sex: M F

Student Race: _____ American Indian Teacher Race: _____ American Indian

_____ Black

_____ Black

_____ Hispanic

_____ Hispanic

_____ Asian

_____ Asian

_____ Caucasian

_____ Caucasian

Student Birthdate:

Teacher Age: < 25__ 46-55__ 26-35__

_____ Mo _____ Day _____ Yr

36-45__ > 56__

Student Grade Level _____

Teacher Certification: (Check all that apply)

Was Student Retained?

___BD ___LD ___MD ___Multicaterogical

___Yes ___No

___Temporary ___Permanent

Student's weighting for
87-88 school year:

Certification Grade Levels: _____

___1.7 ___2.2 ___3.6

Highest Degree Earned: _____

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Indicate the official program disability description:

☐ Behavior Disorder ☐ Multicategorical
☐ Mental Disability ☐ Physical Disability
☐ Learning Disability ☐ Other

This special education program is: ☐ full-time ☐ part-time

Indicate the total number of students enrolled in this special education program with this student:

Of the total number of this student's program, specify the number of students according to the primary handicapping condition:

☐ Behavior Disorder ☐ Communication Disability
☐ Learning Disability ☐ Physical Disability
☐ Mental Disability ☐ Other

Part II: EDUCATIONAL HISTORY INFORMATION

DIRECTIONS: Please answer the following items with information from the cumulative file if available. (To be completed by a member of the support team, psychologist, social worker, consultant, of the teacher).

Years/Grades (from most recent)	Classification, e.g., LD, BD, or Regular Education	Program Model, e.g., Resource	Weighting, e.g., 1.0, 1.7, 2.2
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

If available, indicate the year in which the student was first referred for a comprehensive evaluation.

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Is there information in the record indicating an outside-agency, independent evaluation? ____ Yes ____ No

If yes, Where/Who _____

Diagnosis _____

Recommendations _____

Part III: EDUCATIONAL PROGRAM DURING 1987-88

DIRECTIONS: The following items are to be answered in reference to the student's status in the 1987-88 year prior to the annual review. (To be completed by support service team or teacher.)

Instructional program recommended for student

- | | |
|---------------------------------------------------|-------------------------------------------------------------------|
| ____ Full-time Regular Class
w/Support Service | ____ Special Class w/Integration |
| ____ Full-time Regular Class w/Aide | ____ Self-Contained Special Class
(2.2) |
| ____ Resource Room | ____ Self Contained Special Class
(3.6) |
| ____ Home Bound | ____ Self-Contained Special Class
In a Treatment Setting (3.6) |

Instructional program in which student is currently enrolled

- | | |
|---------------------------------------------------|-------------------------------------------------------------------|
| ____ Full-time Regular Class
w/Support Service | ____ Special Class w/Integration |
| ____ Full-time Regular Class w/Aide | ____ Self-Contained Special Class
(2.2) |
| ____ Resource Room | ____ Self Contained Special Class
(3.6) |
| ____ Home Bound | ____ Self-Contained Special Class
In a Treatment Setting (3.6) |

Does this student receive any of the following services?

- | | |
|-------------------------------------|----------------------|
| ____ OT/PT | ____ Speech/Language |
| ____ It in Teacher (Vision/Hearing) | ____ Adaptive PE |

Does this student currently take prescribed medication as treatment for behavioral or emotional disorders? ____ Yes ____ No

If yes - Please list the medication: _____

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Compared to other students at this attendance center, is this student's day shortened? ____ Yes ____ No

If yes - Indicate: a) Amount of time day is shortened (minutes) ____

b) Reason - busing ____

behavior limits ____

other ____

Age range in class: ____ Age in whole years of oldest student

____ Age in whole years of youngest student

Part IV: STUDENT EVALUATION DATA

DIRECTIONS: This section should be completed by a member of the support team (psychologist, social worker, or consultant) using information from the most recent comprehensive evaluation.

What type of comprehensive evaluation has this student undergone most recently?

____ Initial placement evaluation ____ other comprehensive

____ three-year reevaluation

Using the most recent evaluation data, please indicate the following:

CA at evaluation ____ Yr ____ Mo Date of Evaluation ____

Grade at evaluation ____

Using the most recent comprehensive evaluation staffing report please indicate, by category, the respective behavioral deficits, social/emotional deficits, academic deficits, or other contributing factors that were judged to be significantly deviant and were used as a basis for diagnosing this student as behavior disordered and for determining eligibility for special education services.

Behavior (Example: disruptive in the classroom)

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____

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Social/emotional (Example: Negative peer interactions)

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____

Academic (Example: Reading rate or comprehension difficulty)

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____

Other contributing factors (vocational/career, hygiene/health, survival skills, etc.)

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____

A. Intellectual Data

WISC-R/WAIS-R Full Scale _____

WISC-R/WAIS-R V IQ _____

WISC-R/WAIS-R P IQ _____

Other Scale (Please specify) _____

Scores _____

Norms	Grade _____	Age _____	Unknown _____
Reading Cluster		Grade Score _____	Percentile Rank _____
Math Cluster		Grade Score _____	Percentile Rank _____
Written Language Cluster		Grade Score _____	Percentile Rank _____
Knowledge Cluster		Grade Score _____	Percentile Rank _____

Norms	Grade _____	Age _____	Unknown _____
Math		Grade Equiv _____	Standard Score _____
Reading Recognition		Grade Equiv _____	Standard Score _____
Reading Comprehension		Grade Equiv _____	Standard Score _____
Spelling		Grade Equiv _____	Standard Score _____
General Information		Grade Equiv _____	Standard Score _____

Reading	Grade Equiv _____	Standard Score _____
Spelling	Grade Equiv _____	Standard Score _____
Arithmetic	Grade Equiv _____	Standard Score _____

Others (Please specify) _____

Was this area assessed and explicitly addressed in a discipline report or in the staffing report? ☐ Yes ☐ No Which? ☐ social work ☐ psych ☐ consultant ☐ other

If yes, please indicate manner in which data was reported (check all that apply)

- _____ general paragraph summary, no specific assessment method indicated
- _____ general paragraph summary, teacher interview method indicated
- _____ general paragraph summary, learning environment checklist

Pre-referral Intervention/Documentation of Prior Attempts

Classroom Intervention

- _____ crisis intervention
- _____ modified instruction
- _____ alteration of the physical environment
- _____ social skills instruction
- _____ behavior contracts
- _____ behavior management programs
- _____ time out
- _____ change in expectations
- _____ peer involvement (peer tutoring, buddy system, group contingencies)
- _____ other _____

_____ Yes _____ No

If yes, please indicate effectiveness: Very effective Not effective

6	5	4	3	2	1
---	---	---	---	---	---

School Interventions

- _____ office referrals/principal disciplinary action
- _____ schedule changes/modifications
- _____ personnel changes
- _____ environmental changes (bus, playground, hallway, etc.)
- _____ recess detention
- _____ after school detention
- _____ in-school suspension
- _____ out-of-school suspension
- _____ change in expectations
- _____ building behavior management programs
- _____ building behavior contracts
- _____ counseling
- _____ crisis intervention procedures
- _____ extra curricular activities
- _____ change in class or teacher assignment
- _____ change in attendance center
- _____ other _____

Was the relative effectiveness of the attempted interventions indicated?

_____ Yes _____ No

If yes, please indicate effectiveness: Very effective Not effective

6	5	4	3	2	1
---	---	---	---	---	---

Family Interventions

- _____ notes/calls/conferences with parents/guardian
- _____ changes in expectations
- _____ coordination of behavior contracts/programs with home
- _____ participation in individual or family therapy
- _____ changes in family support network

Was the relative effectiveness of the attempted interventions indicated?

If yes, please indicate effectiveness: Very effective Not effective

6	5	4	3	2	1
---	---	---	---	---	---

_____ services from outside agency (e.g., Juvenile Court, Human Services, church, mental health, etc.)

 consultation with school personnel

If yes, please indicate effectiveness: Very effective Not effective

6	5	4	3	2	1
---	---	---	---	---	---

Was this area assessed and explicitly addressed in a discipline report or in the staffing report? ☐ Yes ☐ No Which? ☐ social work ☐ psych ☐ consultant ☐ other. If yes, please indicate manner in which data was reported (check all that apply)

_____ behavioral rating scales (check all used)

 Cassel's Child Behavior Rating Scale (CBRS)

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- ☐ Conner's Teacher Rating Scale - Revised
 - ☐ Developmental Therapy Objective Rating Form (DTORF)
 - ☐ Devereux Behavior Rating Scales
 - ☐ Hahneman School Behavior Rating Scales
 - ☐ Jesness Behavior Checklist
 - ☐ Mooney Behavior Problem Checklist
 - ☐ Quay-Peterson Revised Behavior Pattern Checklist
 - ☐ Rutter Child Behavior Rating Scale
 - ☐ Walker Problem Behavior Identification Checklist
 - ☐ Other, please specify _____
 - ☐ general paragraph summary - teacher interview
 - ☐ general paragraph summary - parent interview
 - ☐ parent rating scale data (please specify instrument)
-

Which of the following behavioral parameters are specifically addressed?
☐ frequency ☐ intensity ☐ duration

E. Individual Trait Data

Was this area assessed and specifically addressed in a discipline report or in the staffing report? ☐ Yes ☐ No Which? ☐ social work
☐ psych ☐ consultant ☐ other. If yes, indicate manner in which data were reported (check all that apply).

- ☐ general paragraph summary, no specific assessment method indicated
- ☐ general paragraph summary, student interview
- ☐ structured personality test (check all reported)
 - ☐ Children's Personality Questionnaire
 - ☐ Early School Personality Questionnaire
 - ☐ High School Personality Questionnaire
 - ☐ Jesness Inventory
 - ☐ Missouri Children's Picture Series

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- ☐ Minnesota Multiphasic Personality Inventory
- ☐ Personality Inventory for Children
- ☐ Other, please specify _____
- ☐ structured self-esteem inventory (check all reported)
- ☐ Coopersmith Self-Esteem Inventory
- ☐ Inferred Self-Concept Scale
- ☐ Piers-Harris Children's Self-Concept Scale
- ☐ Tennessee Self-Concept Scale
- ☐ Other, please specify _____
- ☐ projective test (check all used)
- ☐ Rorschach
- ☐ Children's Apperception Test
- ☐ Draw-A-Person Test
- ☐ Kinetic Family Drawing
- ☐ House-Tree-Person
- ☐ Rotter Incomplete Sentences Blank
- ☐ Thematic Apperception Test
- ☐ Other, please specify _____

Was this student's diagnosis/eligibility delineated with respect to the Iowa Definition Behavior Cluster? ☐ Yes ☐ No If yes, which?

- ☐ Cluster I - significantly deviant disruptive, aggressive, or impulsive behaviors
- ☐ Cluster II - significantly withdrawn or anxious behaviors
- ☐ Cluster III - significantly deviant thought processes manifested with unusual communication or behavioral patterns or both
- ☐ Cluster IV - significantly deviant behavior patterns characterized by deficits in cognition, communication, sensory processing or social participation or a combination thereof that may be referred to as autistic behavior

Does this student have a DSM-III label as a result of a psychiatric evaluation? ☐ Yes ☐ No If yes, please specify _____

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Part V: CURRENT EDUCATIONAL PROGRAMS

DIRECTIONS: The teacher should complete this section. Using the current IEP, for the 87-88 school year, check only the areas specifically addressed by written IEP Goals or Objectives.

Behavior**Check all addressed by written goals or objectives**

Academic behavior (on-task, assignment completion)	_____
Aggressive behavior (verbal, physical)	_____
Attention seeking (tantrums, out-of-seat)	_____
Compliance	_____
Impulse control	_____
Inappropriate verbalizations	_____
Accepting criticism or correction	_____
Attendance in class	_____

Social/Emotional

Self-esteem, self-concept	_____
Responsibility, Independence	_____
Interpersonal relationships - peers	_____
Interpersonal relationships - adults	_____
Social skills, skill training	_____
Appropriate expression of feelings	_____
Anxiety	_____
Adjustment to school change	_____

Core Academic

Reading recognition, word attack	_____
Reading comprehension	_____
Math	_____
Written language	_____
Social studies	_____
Science	_____

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Other

Vocational/career _____

Family/Community living _____

Computer science _____

Personal hygiene/health _____

Survival skills _____

Study skills _____

Other miscellaneous _____

Is there a district-wide philosophy for the BD program? _____ Yes _____ No
_____ Not Sure

Is this philosophy in written form? _____ Yes _____ No _____ Not Sure

Does your program include a general classroom management component?

_____ Yes _____ No

_____ If yes, describe briefly _____

Does your program include an individual student management component?

_____ Yes _____ No

_____ If yes, describe briefly _____

Does your program include a social skills instruction component?

_____ Yes _____ No

_____ If yes, describe briefly _____

Does your program include an individual counseling component?

_____ Yes _____ No

_____ If yes, describe briefly _____

Does your program include building level crisis intervention component?

_____ Yes _____ No

_____ If yes, describe briefly _____

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To what degree are the following curriculum areas emphasized as part of classroom programming with this student's BD program?

	No Emphasis		Some Emphasis		Strong Emphasis
emotional	0	1	2	3	4
behavioral	0	1	2	3	4
academic	0	1	2	3	4
vocational	0	1	2	3	4
motor	0	1	2	3	4
self-help	0	1	2	3	4
communication/language	0	1	2	3	4
recreation/leisure	0	1	2	3	4
survival skills	0	1	2	3	4
social skills	0	1	2	3	4

PROCEDURES

To what degree are the following intervention strategies used in this classroom with this student.

	Not Used		Used Sometimes		Used Frequently
Individualized counseling	0	1	2	3	4
group counseling	0	1	2	3	4
life space interviewing	0	1	2	3	4
crisis management	0	1	2	3	4
peer tutoring	0	1	2	3	4
peer counseling	0	1	2	3	4
generalization training	0	1	2	3	4
aversive consequences	0	1	2	3	4
suspension/expulsion	0	1	2	3	4
positive reinforcement	0	1	2	3	4

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modeling	0	1	2	3	4
physical restraint	0	1	2	3	4
social skills training	0	1	2	3	4
self-control strategies	0	1	2	3	4
time out/quiet room	0	1	2	3	4
token economy	0	1	2	3	4
other _____ (please specify)	0	1	2	3	4

Part VI: SUPPORT SERVICES

DIRECTIONS: Beginning on the following page, please rate these services for this student (Part A) or for the entire classroom (Parts B & C) using the following dimensions. (To be completed by the teacher.)

<u>Need for Service</u>	High			Low
	1	2	3	4
<u>Degree to Which Need is Met Now</u>	High			Low
	1	2	3	4
<u>Principal Provider of Service</u>	Consultant	Psychologist	Social	Other
	1	2	3	4
<u>Effectiveness of Service</u>	High			Low
	1	2	3	4

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Rate with Respect to this Student

A. Student Services

			High			Low
1)	Ongoing Individual Counseling for this Student	Need	1	2	3	4
			High			Low
		Degree need is met	1	2	3	4
			Consultant	Psychologist	Social	Other
		Principal provider	1	2	3	4
			High			Low
		Effectiveness	1	2	3	4
			High			Low
2)	Ongoing Group Counseling for this Student	Need	1	2	3	4
			High			Low
		Degree need is met	1	2	3	4
			Consultant	Psychologist	Social	Other
		Principal provider	1	2	3	4
			High			Low
		Effectiveness	1	2	3	4
			High			Low
3)	Crisis Intervention Counseling for this Student	Need	1	2	3	4
			High			Low
		Degree need is met	1	2	3	4
			Consultant	Psychologist	Social	Other
		Principal provider	1	2	3	4
			High			Low
		Effectiveness	1	2	3	4

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Rate with Respect to Your Entire Classroom

B. <u>Teacher Services</u>		High			Low	
1)	Consultation with you on Student's Developmental Patterns, Overall Strengths and Weaknesses, and Broad Programming Goals in your Classroom	Need	1	2	3	4
			High			Low
	Degree need is met		1	2	3	4
			Consultant	Psychologist	Social	Other
	Principal provider		1	2	3	4
			High			Low
	Effectiveness		1	2	3	4
2)	Consultation with you on Behavior Management in your Classroom	Need	1	2	3	4
			High			Low
	Degree need is met		1	2	3	4
			Consultant	Psychologist	Social	Other
	Principal provider		1	2	3	4
			High			Low
	Effectiveness		1	2	3	4
3)	Consultation with you on Instructional Materials and Techniques in your Classroom	Need	1	2	3	4
			High			Low
	Degree need is met		1	2	3	4
			Consultant	Psychologist	Social	Other
	Principal provider		1	2	3	4
			High			Low
	Effectiveness		1	2	3	4

Low

Integration/Exit Procedures

1	2	3	4	5	6
---	---	---	---	---	---

Appendix B.
Evaluation Time
Transformation Coefficients

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Social/emotional (Example: Negative peer Interactions)

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____

Academic (Example: Reading rate or comprehension difficulty)

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____

Other contributing factors (vocational/career, hygiene/health, survival skills, etc.)

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____

A. Intellectual DataWISC-R/WAIS-R Full Scale 120 min.

WISC-R/WAIS-R V IQ _____

WISC-R/WAIS-R P IQ _____

Other Scale (Please specify) _____

Scores 120 min._____

30 min. general paragraph summary, learning environment checklist

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60 min. specific sociometric data reported (e.g., peer ratings, sociogram, peer nomination)

30 min. direct classroom observation, anecdotal recording

30 min. direct classroom observation reported, systematic method such as time sampling, event recording, etc.

30 min. behavior rating scales - name of scale _____

30 min. social skills inventory - name of inventory _____

30 min. record reviews, cumulative file

30 min. student interview self-report

NOTE: If this information is from an initial comprehensive evaluation, please complete the information on Pre-referral Intervention/Documentation of Prior Attempts. If the information is from a re-evaluation, then go to Subsection D on p. 8.

Pre-referral Intervention/Documentation of Prior Attempts

If this is an initial placement evaluation, are there specific, documented attempts at pre-referral intervention? ____ Yes ____ No (Please indicate all that are reported.)

Classroom Intervention

____ crisis intervention

____ modified instruction

____ alteration of the physical environment

____ social skills instruction

____ behavior contracts

____ behavior management programs

____ time out

____ change in expectations

____ peer involvement (peer tutoring, buddy system, group contingencies)

____ other _____

Was the relative effectiveness of the attempted interventions indicated?

____ Yes ____ No

If yes, please indicate effectiveness: Very effective Not effective
6 5 4 3 2 1

Was the relative effectiveness of the attempted interventions indicated?

 Yes No

If yes, please indicate effectiveness: Very effective Not effective

6	5	4	3	2	1
---	---	---	---	---	---

_____ services from outside agency (e.g., Juvenile Court, Human Services, church, mental health, etc.)

_____ referrals to other agencies

 consultation with school personnel

Was the relative effectiveness of the attempted interventions indicated?

 Yes No

If yes, please indicate effectiveness: Very effective Not effective

6	5	4	3	2	1
---	---	---	---	---	---

Was this area assessed and explicitly addressed in a discipline report or in the staffing report? ☐ Yes ☐ No Which? ☐ social work ☐ psych ☐ consultant ☐ other. If yes, please indicate manner in which data was reported (check all that apply)

30 min. general paragraph summary, no specific assessment method indicated

60 min. general paragraph summary, behavioral observation

120 min. systematic behavioral observation with specific data

 behavioral rating scales (check all used)

30 min. Achenbach Child Behavior Checklist (CBC)

30 min. Behavior Evaluation Scale (BES)

30 min. Bristol Social Adjustment Guide (BSAG)

30 min. Burk's Behavior Rating Scale (BRS)

30 min. Brown-Hamill's Behavior Rating Profile (BRP)

30 min. Cassel's Child Behavior Rating Scale (CBRS)

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30 min. Conner's Teacher Rating Scale - Revised30 min. Developmental Therapy Objective Rating Form (DTORF)30 min. Devereux Behavior Rating Scales30 min. Hahneman School Behavior Rating Scales30 min. Jesness Behavior Checklist30 min. Mooney Behavior Problem Checklist30 min. Quay-Peterson Revised Behavior Pattern Checklist30 min. Rutter Child Behavior Rating Scale30 min. Walker Problem Behavior Identification Checklist30 min. Other, please specify _____30 min. general paragraph summary - teacher interview60 min. general paragraph summary - parent interview30 min. parent rating scale data (please specify instrument)

Which of the following behavioral parameters are specifically addressed?
_____ frequency _____ intensity _____ duration

E. Individual Trait Data

Was this area assessed and specifically addressed in a discipline report or in the staffing report? _____ Yes _____ No Which? _____ social work
_____ psych _____ consultant _____ other. If yes, indicate manner in which data were reported (check all that apply).

30 min. general paragraph summary, no specific assessment method indicated30 min. general paragraph summary, student interview

_____ structured personality test (check all reported)

30 min. Children's Personality Questionnaire30 min. Early School Personality Questionnaire30 min. High School Personality Questionnaire30 min. Jesness Inventory30 min. Missouri Children's Picture Series

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90 min. Minnesota Multiphasic Personality Inventory30 min. Personality Inventory for Children30 min. Other, please specify _____

_____ structured self-esteem inventory (check all reported)

30 min. Coopersmith Self-Esteem Inventory30 min. Inferred Self-Concept Scale30 min. Piers-Harris Children's Self-Concept Scale30 min. Tennessee Self-Concept Scale30 min. Other, please specify _____

_____ projective test (check all used)

30 min. Rorschach30 min. Children's Apperception Test30 min. Draw-A-Person Test30 min. Kinetic Family Drawing30 min. House-Tree-Person30 min. Rotter Incomplete Sentences Blank30 min. Thematic Apperception Test30 min. Other, please specify _____

Was this student's diagnosis/eligibility delineated with respect to the Iowa Definition Behavior Cluster? _____ Yes _____ No If yes, which?

_____ Cluster I - significantly deviant disruptive, aggressive, or impulsive behaviors

_____ Cluster II - significantly withdrawn or anxious behaviors

_____ Cluster III - significantly deviant thought processes manifested with unusual communication or behavioral patterns or both

_____ Cluster IV - significantly deviant behavior patterns characterized by deficits in cognition, communication, sensory processing or social participation or a combination thereof that may be referred to as autistic behavior

Does this student have a DSM-III label as a result of a psychiatric evaluation? _____ Yes _____ No If yes, please specify _____